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Central Florida Phosphate Industry Areawide Impact Assessment Program. Volume II: Environmental Permits and Approvals Relating to Phosphate Mining and Fertilizer Manufacturing in Florida

Texas Instruments, Inc., Dallas

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CENTRAL FLORIDA PHOSPHATE INDUSTRY AREAWIDE IMPACT ASSESSMENT PROGRAM

Volume II: Environmental Permits and Approvals Relating to Phosphate Mining and Fertilizer Manufacturing in Florida

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16. Abstracts

Public policies that affect the Florida phosphate industry are described in this volume of a 7-volume central Florida phosphate industry areawide impact assessment. Inasmuch as environmental legislation and regulatory implementation are in constant flux, this document constitutes only a general overview of federal, state, and local requirements related to the environmental review process.

Federal legislation explained includes the Clean Air Act, Federal Water Pollution Control Act, Atomic Energy Act, Safe Drinking Water Act, Resource Conservation and Recovery Act, and Surface Mining Control and Reclamation Act. Statuatory controls, permitting requirements, and enforcement at the state and local levels are also discussed.

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PREFACE

Public policies that affect the Florida phosphate industry are described in this volume. These laws and the regulations implementing them, as well as the administrators within the agencies charged with their implementation, constitute an inextricable part of the existing social environment that impacts or is impacted by the industry. Thus, since the existing environment serves as the context within which all proposed modifications to policies may be judged, they must be described accordingly. To accomplish this task, Texas Instruments Incorporated obtained the services of the legal firm of Holland and Knight, which has serviced the phosphate industry with expert legal advice for a number of years. Credit is especially extended to Mssrs. Robert Murray, Esquire; W. Daniel Stephens, Esquire; Roger W. Sims, Esquire; and Robert L. Rhodes, Jr.

This description of statutes, ordinances, and regulations does not constitute a legal opinion as to the specific applicability or validity of any laws or rules, nor is it specifically applicable to any existing or future phosphate mining or fertilizer manufacturing operation since unique site-specific factors must be considered in every permitting situation. Development of environmental legislation and regulatory implementation are ongoing, dynamic processes. In many instances, the responsible agencies are currently developing regulations and policy guidance. Furthermore, a number of statutes and regulations are the subject of administrative or judicial review. Thus, the intent of this volume is to provide a general overview of federal, state, and local requirements related to the environmental review process.

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Other reports in this series presenting information developed by, or supplied to, Texas Instruments Incorporated (TI) while conducting an area-wide environmental impact assessment of the central Florida phosphate industry for the Environmental Protection Agency (EPA) include:

Volume	Title
I	Program and Industry Description
III	Socioeconomics
IV	Atmosphere
V	Water
VI	Land
VII	Impacts of Alternative Public Policies on Social, Economic, and Natural Environmental Systems

These reports are made available through the National Technical Information Service to serve as background information to the environmental statements (draft and final) and environmental planning needs of federal, state and local agencies as well as other interested parties. The information will be of value to those involved with development and regulation of the phosphate industry, others who plan developments in central Florida, and environmental planners in general who must deal with environmental issues on a regional basis. It is hoped their use will lead to good decisions. It has often been said that decisions are only as good as the information on which they are based. Extending that philosophy, decisions are only as good as the decision makers' understanding of the adequacy of the information in resolving the issues being examined.

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SECTION 1

FEDERAL LAW

A. AIR QUALITY

Clean Air Act. [42 U.S.C. § 7401 et seq.; Pub. L. 90-148; Pub. L. 91-604; Pub. L. 92-157; Pub. L. 93-15; Pub. L. 93-319; Pub. L. 95-95; and Pub. L. 95-190 (CAA).] (Unless otherwise specified, citations will be to sections of the CAA, as amended.)

1. Ambient Air Quality Standards

The basic purpose of the CAA is the protection and enhancement of the quality of the air to which the general public has access--"the air we breathe." Section 109 requires the Administrator of the United States Environmental Protection Agency (EPA) to issue regulations establishing national ambient air quality standards. Primary ambient air quality standards are established to protect the public health with a reasonable margin of safety. Secondary standards are established to protect the public welfare from any known or anticipated adverse effects of a pollutant.

EPA has promulgated primary and secondary national ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, photochemical oxidants, hydrocarbons, and nitrogen dioxide. 40 C.F.R. §§ 50.4-50.11. These pollutants are commonly called "criteria pollutants."

2. Implementation

Congress declared that "the prevention and control of air pollution at its source is the primary responsibility of the States and local governments." Section 101(a)(3). The basic thrust of the CAA is the establishment of minimum federal standards and requirements to be implemented and enforced at the state level. Thus, Section 110 requires each state to adopt and submit to EPA a plan (State Implementation Plan or "SIP") that will result in the implementation of standards, permit requirements, and other provisions of the CAA. Specific requirements include adoption by the state of "emission standards" for

control of air pollution at the source. Section 110(a)(1). Upon review and approval of an SIP by EPA, the state will in general assume primary enforcement responsibility for the plan. If the state fails to submit an implementation plan or if it submits a plan that is deemed not to be in accordance with the CAA, EPA's Administrator must promptly take steps to adopt an acceptable plan. Section 110(c)(1).

3. Emission Standards

a. Federal

Protection and enhancement of ambient air requires controlling the emission of air pollutants at the source. Section 111 mandates development by EPA of standards of performance for new sources of air pollution that may cause or contribute significantly to air pollution reasonably anticipated to endanger public health or welfare. A stationary source is defined as "any building, structure, facility or installation which emits or may emit any air pollutant." Section 111(a)(3), CAA. A stationary source is "new" if construction or modification of the source is commenced "after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance . . . which will be applicable to such source." Section 111(a)(2).

EPA has promulgated standards of performance applicable to certain phosphate fertilizer manufacturing operations. These include wet process phosphoric acid plants, superphosphoric acid plants, diammonium phosphate plants, triple superphosphate plants, and granular triple superphosphate storage facilities. 40 C.F.R., Part 60, Subparts T, U, V, W, X (1977). These standards of performance establish limitations on the emissions of fluorides generated in the production process. In addition, monitoring requirements and test methods and procedures are established.

EPA has also developed standards of performance for new sources for sulfuric acid plants. These standards include limitations for sulfur dioxide and acid mist. 40 C.F.R., Part 60, Subpart H (1977). Sulfuric acid is used in the production of phosphoric acid.

EPA has not issued standards of performance for new air pollution sources associated with phosphate rock mining and beneficiation facilities (e.g., drying phosphate rock).

b. State

Section 110 requires each state to establish as part of its SIP emission limitations, time tables for compliance with such limitations, and other measures as may be necessary to insure attainment and maintenance of the ambient air standards. The State of Florida's emission limitations appear in Chapter 17-2, Florida Administrative Code. See pp. 30-33 infra.

4. Preconstruction Review and Approval

The 1977 Amendments to the Clean Air Act (Pub. L. 95-95) specifically established extensive preconstruction review and permitting requirements for new "major emitting facilities." Application of the rules promulgated thereunder depends upon the quality of the air in the area affected by the proposed new source of pollution.

a. Clean Air Areas

In those areas where the ambient air quality is better than national ambient air quality standards, the preconstruction review requirements are aimed at the "prevention of significant deterioration" (PSD) of the air quality. No new "major emitting facility" may be constructed unless a permit has been issued for that facility. The CAA defines "major emitting facility" as any of certain listed stationary sources "which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant . . . ." Section

169(1). Sulfuric acid plants are included in the statutory list. In addition, the list includes "phosphate rock processing plants." EPA has interpreted this term to include rock dryers at phosphate rock mines as well as phosphate fertilizer manufacturing facilities that use phosphate rock as a raw material. The term "major emitting facility" also includes other sources of air pollution not included in the list of specific categories if such source has "the potential to emit two hundred and fifty tons per year or more of any air pollutant." Id.

An applicant for a permit to construct a major emitting facility must demonstrate that the emissions from the new facility will not cause or contribute to violations of any national ambient air quality standard. The facility must also comply with any applicable emission standard or standard of performance promulgated under the CAA. Furthermore, the applicant must demonstrate that the proposed emissions will not cause or contribute to air pollution in excess of the "maximum allowable increase or maximum allowable concentration for any pollutant in any [clean air] area . . . more than one time per year." Section 165(a)(3)(A).

Congress established specific maximum allowable increases over ambient air baseline concentrations in three "classes" of clean air areas as follows:

CLASS I AREA	Maximum allowable increase (in micrograms per cubic meter)
Particulate Matter:	
Annual geometric mean	5
Twenty-four-hour maximum	10

Sulfur Dioxide:

Annual arithmetic mean	2
Twenty-four-hour maximum	5
Three-hour maximum	25

CLASS II AREA

Particulate Matter:

Annual geometric mean	19
Twenty-four-hour maximum	37

Sulfur Dioxide:

Annual arithmetic mean	20
Twenty-four-hour maximum	91
Three-hour maximum	512

CLASS III AREA

Particulate Matter:

Annual geometric mean	37
Twenty-four-hour maximum	75

Sulfur Dioxide:

Annual arithmetric mean	40
Twenty-four-hour maximum	182
Three-hour maximum	700

Section 163(b)(1),(2), & (3). Currently, all counties in Florida are Class II. (But see the discussion concerning the nonattainment status of Polk and Hillsborough Counties at pp. 7-8 infra.)

In addition to demonstrating that the proposed new facility will not violate performance standards, ambient air quality standards, or maximum allowable emissions, the applicant must also install the "best available control technology" to limit emissions of each pollutant subject to regulations under the CAA. Section 165(a)(4). This level of technology must be at least equivalent to an applicable standard of performance, but on a case-by-case basis may be more stringent. Section 169(3).

Regulations implementing certain immediately effective provisions of the CAA were promulgated by EPA in November of 1977. 42 Fed. Reg. 57461-57462 (November 3, 1977) (to be codified in 40 C.F.R. § 52.21). EPA has also proposed regulations aimed at complete implementation of PSD requirements. 42 Fed. Reg. 57474-57478, 57483-57488 (November 3, 1977) (to be codified in 40 C.F.R. §§ 51.24, 52.21). These regulations have not yet been finally adopted.

b. Nonattainment Areas

Areas in violation of national primary and secondary ambient air quality standards are termed "nonattainment areas." As of this date, Polk and Hillsborough Counties have been formally designated as nonattainment areas for total suspended particulates. 43 Fed. Reg. 8962 (March 3, 1978) (to be codified in 40 C.F.R. § 81.310). Interested parties have questioned these designations.

Section 129 of Pub. L. 95-95 adopts an EPA "interpretative ruling" establishing an "emission offset policy" for nonattainment areas. The ruling is found at 41 Fed. Reg. 55524 (December 21, 1976). The offset policy applies until July 1, 1979, and pertains to "major stationary sources" with a potential to emit 100 tons or more a year of the pollutant causing the area to have nonattainment status. A threshold of 1,000 tons per year was set for carbon monoxide.

Thus, prior to July 1, 1979, no new or modified major stationary source may be constructed unless it complies with the offset policy (with certain exceptions). Restrictions under the policy include the following: (1) Existing air pollution emissions in the area must be reduced in an amount that more than exceeds the proposed new source air emissions. (This assures reasonable progress toward attainment of the applicable ambient air quality standard.); (2) The new or modified source must achieve the "lowest achievable emission rate"; and (3) All existing sources in the same air quality control region owned or controlled by the person seeking authority to construct the new source must be in compliance with the applicable air quality regulations. Id.

On or after July 1, 1979, no new or modified major stationary source may be constructed in a nonattainment area unless the state has modified its implementation plan to meet the requirements of Section 172(b). The revised state implementation plan must provide for the attainment of national primary ambient air quality standards not later than December 31, 1982, although this date may be extended to December 31, 1987, for photochemical oxidants and carbon monoxide. The plan must demonstrate annual incremental emission reductions that constitute reasonable further progress toward the goal of attainment of ambient air quality standards. A permit program must be established for the construction of new or modified major stationary sources. As in the pre-July 1, 1979 situation, new sources will be required to apply the lowest achievable emission rate. In addition, an emission offset may be required. All existing sources owned by the permit applicant within the state must be in compliance with applicable air quality regulations. Section 173.

5. Enforcement

a. Administrative Action

Under certain circumstances EPA has the authority to issue an administrative order for compliance with requirements imposed pursuant to the CAA. Section 113(a). If EPA concludes that any person is in violation of an approved SIP, it must give notice of such finding to the person in violation and to the state. If the violation extends past the 30th day after the date of notice from EPA, the Administrator may issue an order requiring such person to comply with the SIP. Section 113(a)(1).

If EPA concludes that there are widespread violations of the SIP resulting from a failure of the state to enforce its plan effectively, it is required to notify the state of such finding. If the situation continues beyond the 30th day after the notice, EPA will assume enforcement responsibility for the plan and may issue administrative orders to compel compliance with any of its requirements. Section 113(a)(2).

EPA may also issue an order prohibiting the construction or modification of any major stationary source in a nonattainment area if the state has not complied with applicable requirements for development in such areas. Section 113(a)(5).

EPA may issue an administrative compliance order without any prior notice upon a finding that any person is in violation of certain specific provisions, including Section 111(e) establishing new source performance standards. Section 113(a)(3).

Except for actions relating to violations of standards for hazardous emissions (Section 112), an administrative order shall not be effective until the person to whom it is issued has had an opportunity to confer with EPA concerning the alleged violation. Section 113(a)(4).

b. Judicial Remedies

The CAA provides for commencement of civil actions in an appropriate federal district court against any person who: (1) violates any administrative enforcement order, (2) violates any requirement of an applicable SIP during a period of federal enforcement or more than 30 days after notice is given by EPA of a violation and the violation continues after the 30th day, (3) violates certain specific sections of the CAA including Section 111(e) and Section 114 (inspection, monitoring and entry requirements), or (4) attempts to construct or modify a major source in a nonattainment area when the state has not complied with the requirements of the CAA for development in those areas. Section 113(b).

Available civil sanctions include permanent or temporary injunctive relief or a civil penalty not to exceed $25,000 per day of violation, or both. Id. In addition, EPA may seek to impose noncompliance penalties under Section 120, which are intended to negate economic benefits obtained by failing to comply with requirements.

Criminal sanctions are also established by the CAA. Any person who knowingly violates any requirement of the state implementation plan during a period of federal enforcement, continues in violation more than 30 days after receipt of appropriate notice from EPA, or violates new source performance standards or other specific sections of the CAA is subject to a fine of not more than $25,000 per day of violation or by imprisonment for not more than one (1) year, or by both. For second and later offenses this punishment may increase to a fine of not more than $50,000 per day of violation or by imprisonment of not more than two (2) years, or by both. Section 113(c)(1). Furthermore, any person who knowingly makes false statements in connection with reports, records or other documents filed or required to be maintained under

the CAA or who falsifies, tampers or renders inaccurate any monitoring device required to be maintained under the CAA shall be punished by a fine of not more than $10,000 or by imprisonment for not more than six (6) months, or both. Section 113(c)(2). For the purposes of criminal enforcement, the term "person" includes any "responsible corporate officer." Section 113(c)(3).

B. WATER QUALITY

> Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (commonly referred to as the "Clean Water Act"). [33 U.S.C. § 1251 et seq.; Pub. L. 92-500; Pub. L. 93-207; Pub. L. 93-243; Pub. L. 93-592; Pub. L. 94-238; Pub. L. 94-558; and Pub. L. 95-217 (CWA).] (Unless otherwise specified, citations will be to sections of the CWA, as amended.)

1. Control of Point Source Discharges

The national goal expressed in the CWA is the elimination of the discharge of pollutants into the navigable waters by 1985. Section 101(a)(1). The term "discharge of pollutants" means "any addition of any pollutant to navigable waters from any point source." Section 502(12)(A). A point source is

> any discernible, confined and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

Section 502(14). Industrial facilities such as phosphate rock beneficiation plants and phosphate fertilizer manfacturing plants may discharge wastewater through point sources subject to the requirements of the CWA.

The term "navigable waters" is defined to include:

(1) All navigable waters of the United States;

(2) Tributaries of navigable waters of the United States;

(3) Interstate waters;

(4) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes;

(5) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and

(6) Intrastate lakes, rivers and streams which are utilized for industrial purposes by industries in interstate commerce.

40 C.F.R. § 125.1(p) (1977).

Section 301(a) provides that "except as in compliance with this section and sections 302, 306, 307, 318, 402 and 404 of this Act, the discharge of any pollutant by any person shall be unlawful." Section 402 in turn establishes the "National Pollutant Discharge Elimination System" (NPDES) which provides for issuance of permits for the discharge of pollutants through point sources to navigable waters. Discharges are subject to various technology -based "effluent limitations and standards" developed by EPA and promulgated as regulations. Sections 304, 306. These effluent limitations and standards are generally incorporated as requirements in NPDES permits. Under certain circumstances, EPA may require controls more stringent than those established by regulation if applicable water quality standards will not be implemented by application of the applicable effluent limitations or standards. Sections 301(b)(1)(c), 302.

Section 402(b) provides for delegation of the NPDES program from EPA to the states, but Florida has not yet assumed responsibility for this program. Until Florida develops an approved program, NPDES permits for point source discharges in the state will be issued by the EPA Regional Administrator, Region IV, Atlanta, Georgia.

Although the state does not issue NPDES permits at this time, it must "certify" or waive certification of each NPDES permit issued by EPA. Section 401(a)(1). This certification provides the state with an opportunity to require the imposition of more stringent effluent standards (e.g., those necessary to achieve applicable water quality standards).

a. New Sources

A "new source" is defined as:

> . . . any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

Section 306(a)(2).

The term "construction" is defined as:

> . . . any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

Section 306(a)(5).

Upon the initiation of operations, new sources of pollution must comply with applicable new source performance standards, which represent the "best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants." Section 306(a)(1).

EPA has published regulations establishing new source performance standards for phosphate fertilizer manufacturing and mining operations. These standards are discussed in more detail in subsection (c) below.

b. Existing Sources

In order to reach the goal of eliminating point source discharges, the CWA outlines a phased program to establish technology-based effluent

limitations for "existing sources." Under the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500), existing sources were to achieve limitations that required the application of the "best practicable control technology currently available" (BPT) by July 1, 1977. By July 1, 1983, existing point sources were to apply the "best available control technology economically achievable" (BAT). The 1977 Amendments (Pub. L. 95-217) modified this phased implementation approach.

The July 1, 1977 date for BPT compliance has passed. The 1977 Amendments to the 1972 legislation made no direct modification to this phase of the implementation procedure. The CWA does, however, contain certain limited provisions authorizing EPA to grant extensions of time for compliance with BPT requirements. Section 309(a)(5)(B).

The requirement for achieving BAT has been extended one (1) year to July 1, 1984. Section 301(b)(2). Compliance with specified levels of pollutant control may be modified or extended. See, e.g., Sections 301(c), (g), (h), (i), (j). BAT extentions to July 1, 1987, are also provided in certain limited circumstances where "innovative technology" is installed. Section 301(k).

The CWA now requires that by July 1, 1984, existing sources of certain identified "conventional pollutants" (including total suspended solids and pH) achieve effluent limitations that require the application of the "best conventional pollutant control technology" (BCT). Section 301(b)(2)(E). The BCT determination requires a more extensive evaluation of cost considerations than the initial BAT requirements. See Section 304(b)(4).

Existing sources that discharge any of 65 specifically identified toxic pollutants must apply BAT by July 1, 1984. Section 301(b)(2)(C). For other toxic pollutants BAT must be applied within three (3) years of promulgation of an applicable effluent limitation. Section 301(b)(2)(D).

Pollutants that are neither "toxic" nor "conventional" have been termed "nonconventional" pollutants. Existing sources of such nonconventional pollutants must apply BAT within three (3) years of the adoption of applicable effluent limitations except that BAT may not be required earlier than July 1, 1984, nor later than July 1, 1987. Section 301(b)(2)(F).

c. Applicable Effluent Limitations

EPA has published regulations establishing technology-based effluent limitations applicable to the phosphate industry. BPT and BAT limitations and new source performance standards have been established for the phosphate subcategory of the fertilizer manufacturing point source category. These regulations are applicable to the discharges resulting from the manufacture of sulfuric acid by sulfur burning, wet process phosphoric acid, normal superphosphate, triple superphosphate and ammonium phosphate. 40 C.F.R., Part 418 (1977). The regulations establish concentration limitations for total phosphorus, fluoride and total suspended solids (TSS) in process wastewater, and for phosphorus and fluoride in contaminated nonprocess wastewater.

BPT effluent limitations have been promulgated for phosphate rock mining point sources. 42 Fed. Reg. 35852 (July 12, 1977) (to be codified in 40 C.F.R. §§ 436.180, 436.181, 436.182). BAT limitations and new source performance standards for the phosphate rock mining subcategory have been proposed. 41 Fed. Reg. 23569 (June 10, 1976). The new source performance standards were promulgated on March 10, 1978. 43 Fed. Reg. 9810 (March 10, 1978)(to be codified in 40 C.F.R. § 436.185). The BAT limitations have not been finally adopted. The BPT limitations and new source performance standards establish limitations on the discharge of TSS and pH.

At this time it is unclear what action EPA will take to implement the 1977 Amendments to the Clean Water Act as they relate to the effluent limitations

and standards applicable to the phosphate industry. TSS and pH are statutorily defined as conventional pollutants. Thus, EPA must determine what discharge limitations will constitute BCT for these parameters. Phosphorus and fluorides are also regulated under the applicable regulations, although EPA has not yet determined whether these will be deemed conventional or nonconventional pollutants.

2. Control of Discharges of Dredged or Fill Material

Under Section 404, a permit from the United States Army Corps of Engineers (Corps) is required prior to the discharge of dredged or fill materials into the waters of the United States. Phosphate mining operations can under certain circumstances lead to the discharge of dredged material. Similarly, construction of phosphate ore beneficiation and chemical processing plants and related settling facilities in certain locations could invoke Corps' jurisdiction under Section 404.

The term "waters of the United States" confers rather broad jurisdiction. The term means:

> (1) The territorial seas with respect to the discharge of fill material . . .;
>
> (2) Coastal and inland waters, lakes, rivers and streams that are navigable waters of the United States, including adjacent wetlands;
>
> (3) Tributaries to navigable waters of the United States, including adjacent wetlands (man-made nontidal drainage and irrigation ditches excavated on dry land are not considered waters of the United States under this definition);
>
> (4) Interstate waters and their tributaries, including adjacent wetlands; and
>
> (5) All other waters of the United States not identified in paragraphs (1)-(4), above, such as isolated wetlands and lakes, intermittent streams, prairie potholes, and other waters that are not waters of the

> tributary system to interstate waters or to navigable waters of the United States, the degradation or destruction of which could affect interstate commerce.

42 Fed. Reg. 37144 (July 19, 1977) (to be codified in 33 C.F.R. § 323.2). The Corps has, however, issued nationwide permits by regulation approving certain activities (e.g., activities in relatively minor water bodies). Id. at 37146 (to be codified in 33 C.F.R. § 323.4).

Section 404 permits for phosphate related activities are issued after public notice and the opportunity for public comment. Detailed procedures are set forth at 42 Fed. Reg. 37149 (July 19, 1977) (to be codified in 33 C.F.R., Part 325). A public hearing may be held if the Corps determines that a hearing will assist in making a decision or if any person requests a hearing, unless the Corps determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Prior to issuing a Section 404 permit the Corps is required to consider a number of factors including a "public interest review" and an evaluation of the proposed project's effect on wetlands, fish and wildlife, water quality, and historic, scenic and recreational values in the area. Consultation with other federal, state and local governmental representatives is encouraged to assure that issuance of a permit would not be in significant conflict with pertinent laws and regulations. Id. at 37136 (to be codified in 33 C.F.R. § 320.4). For example, the Corps considers potential water quality and ecological impacts from the proposed activity in cooperation with EPA. See 40 C.F.R., Part 230 (1977).

Although the Corps is the permit-issuing agency, EPA can prohibit or restrict activities for which permits are required if, after notice and opportunity for public hearing, it is determined that the activity will have an

unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas. Section 404(c).

3. Water Quality Standards and Control of Nonpoint Sources of Pollution

Under Section 303, water quality standards existing as of the date of the 1972 amendments are continued in effect. Water quality standards established by states are required to be submitted for review and approval by EPA. Sections 303(a), 303(b). EPA is required to promulgate water quality standards for a state if satisfactory standards are not submitted. Section 303(b).

Beginning in 1975, each state was required to hold public hearings at least once every three years for review and revision of water quality standards. Section 303(c). The State of Florida Environmental Regulation Commission (the "standard-setting" body) is currently revising the State of Florida Water Quality Standards set forth in Chapter 17-3, Florida Administrative Code.

In an effort to assure proper guidance for maintenance and achievement of water quality standards, Congress required each state to identify waters in the state for which the effluent limitations and standards are not stringent enough to implement applicable water quality standards. Section 303(a)(1)(A). In such instances, the state must establish "total maximum daily loads" for pollutants in these waters. Section 303(d)(1)(C).

Section 303(e) in turn requires the states to establish an EPA approved "continuing planning process," that sets forth effluent limitations and schedules of compliance (using the established "maximum loads") that will implement the water quality standards. Section 303(d). Regulations governing continuing planning processes are set forth at 40 C.F.R., Parts 130 & 131 (1977).

Provisions of the CWA requiring the establishment of regulations and issuance of permits apply only to "point source" discharges [Section 301(a)]. However, Section 208 and related sections set forth procedures requiring states or regional agencies to establish programs to control nonpoint source pollution. These regulatory programs must specifically address, among other things, mine-related sources of pollution including new, current, and abandoned surface and underground mine runoff. Section 208(b)(2)(G).

Florida's implementation of requirements under Sections 303 and 208 is underway.

4. Control of Oil and Hazardous Substances

Section 311 regulates "discharges" of oil and hazardous substances. Although the basic thrust of Section 311 concerns spills, the term "discharge" is defined broadly and may include discharges normally permitted under the CWA. Although Section 311 regulations have been adopted to govern discharges of oil, these provisions are beyond the scope of this review.

EPA was required, under Section 311(b)(2)(A), to promulgate regulations:

> designating as hazardous substances, other than oil . . ., such elements and compounds which, when discharged in any quantity . . ., present an imminent and substantial danger to the public health or welfare including . . . fish, shellfish, wildlife, shorelines, and beaches.

The required regulations were recently promulgated and set forth a comprehensive scheme to control the discharge of hazardous substances. 43 Fed. Reg. 10474 (March 3, 1978) (to be codified in 40 C.F.R., Parts 116, 117, 118, and 119). These regulations designate hazardous substances, provide a determination of harmful quantities of such substances, determine their removability, and establish a basis for assessing fines for violations.

Section 311 regulations also may relate to discharges subject to NPDES permits under the CWA. The apparent intent of Section 311 is that discharges in compliance with issued NPDES permits will not be deemed in violation of regulations under Section 311. EPA amended its hazardous substance regulations on June 5, 1978, to attempt to clarify this issue. Id. at 24309 (June 5, 1978) (to be codified in 40 C.F.R. § 118.1). The interrelationship of the Section 311 regulations and NPDES permitting programs is somewhat unclear, and is currently subject to a number of judicial actions.

5. Enforcement

a. Administrative Remedies

1) EPA

EPA has broad authority to take administrative action for enforcement of the CWA. If, on the basis of any information available, EPA finds that any person is in violation of Sections 301 (effluent limitations), 302 (water quality related effluent limitations), 306 (new source performance standards), 307 (toxic and pretreatment standards), 308 (inspections, monitoring, and entry), 318 (aquaculture), or 405 (disposal of sewage sludge), or is in violation of any permit condition or limitation implementing any of such sections, or in a permit issued under Section 404 (permits for dredged or fill material), an administrative order requiring compliance "shall" be issued, or a civil action "shall" be commenced. Section 309(a)(3).

If such specified violations occur under permits issued by a state, EPA must notify the state and the person alleged to be in violation. If beyond the thirtieth day after the notification the state has not commenced "appropriate" enforcement action, EPA must issue an order requiring compliance or bring a civil action. Section 309(a)(1). Similar to provisions in the CAA, EPA is authorized to issue orders during periods of "federally assumed enforcement." Section 309(a)(2).

Administrative orders may be used as a vehicle for granting extensions of the July 1, 1977 BPT deadline under very limited circumstances, Section 309(a)(5)(B), and for requiring discharges into publically owned treatment works. Section 309(a)(6).

2) Corps

If the Corps finds that any person is in violation of conditions or limitations set forth in a permit issued under Section 404, it shall issue an order requiring compliance with such conditions or limitations, or bring a civil action "for appropriate relief." Section 404(s).

The District Engineer of the Corps shall commence an immediate investigation of all unauthorized activities brought to his attention and shall formulate recommendations as to the appropriate administrative and/or legal actions to be taken. 42 Fed. Reg. 37158 (July 19, 1977) (to be codified in 33 C.F.R. § 326.3). Such action may include criminal or civil proceedings. Section 404(s)(3) and (4); 42 Fed. Reg. 37159 (July 19, 1977) (to be codified in 33 C.F.R. § 326.4). If one of these alternatives is not selected, the Corps may issue an appropriate "after-the-fact" permit for the activity. 42 Fed. Reg. 37159 (July 19, 1977) (to be codified in 33 C.F.R. § 326.5).

b. Judicial Remedies

1) EPA

In those instances where EPA is authorized to issue an administrative order, the CWA provides for a civil sanctions against the alleged violator. EPA may seek permanent or temporary injunctive relief and may seek the imposition of civil penalties not to exceed $10,000 per day of alleged violation. Sections 309(b), 309(d). Any person who "willfully or negligently" violates Sections 301, 302, 306, 307 or 308, or any condition of an NPDES permit, is subject to a criminal fine of not less than $2,500 and not more than $25,000

per day of violation or by imprisonment for not more than one (1) year (or both) for the first offense. For subsequent offenses punishment may be by fine of not more than $50,000 per day or by imprisonment for not more than two (2) years or by both. False reporting and tampering with monitoring devices are also crimes and punishment may be a fine of not more than $10,000, or imprisonment for not more than six (6) months, or both. For the purposes of criminal enforcement provisions, the term "person" includes "any responsible corporate officer." Section 309(c).

2) Corps

For violations of permits issued under Section 404 of the CWA, the Corps may pursue judicial remedies, including criminal or civil proceedings. Criminal sanctions may be imposed for persons willfully or negligently violating any condition or limitation of a Section 404 permit. First offenses are punishable by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one (1) year, or by both. Subsequent offenses are punishable by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or by both. Section 404(s)(4)(A). The term "person" is defined to include any "responsible corporate officer." Section 404(s)(4)(B).

The Corps is also authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which it is authorized to issue a compliance order. Section 404(s). Furthermore, any person who violates any condition or limitation of a Section 404 permit or any person who violates an administrative order issued by the Corps shall be subject to a civil penalty not to exceed $10,000 per day of violation.

C. ENVIRONMENTAL REVIEW

> National Environmental Policy Act. [42 U.S.C. § 4341 et seq.; Pub. L. 91-190; Pub. L. 94-52; and Pub. L. 94-83 (NEPA).] (Unless otherwise specified, citations will be to sections of NEPA, as amended.)

Section 101 of NEPA establishes a national policy to "create and maintain conditions under which man and nature can exist in productive harmony" and fulfill the needs of future generations of Americans. NEPA establishes the Council on Environmental Quality (CEQ) (Section 202) and sets forth certain "action-forcing" requirements. These provisions are found in Section 102 of NEPA:

> . . . [T]o the fullest extent possible: (1) the policies, regulations and public laws of the United States shall be interpreted and administered in accordance with policies set forth in this Chapter and (2) all agencies of the federal government shall -
>
> . . .
>
> (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on -
>
> (i) the environmental impact of the proposed action,
>
> (ii) adverse environmental effects which cannot be avoided should the proposal be implemented,
>
> (iii) alternatives to the proposed action,
>
> (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
>
> (v) any irreversible and irretrievable commitment of resources which would be involved in the proposed action should it be implemented.

The "detailed statement" referred to in Section 102(C) is called an Environmental Impact Statement (EIS). The need for EIS review is determined by the responsible agency after consideration of the specific proposed activity.

Generally, issuance of federal licenses or permits may trigger the EIS requirement if the issuance is a "major federal action" and the resulting permitted activity has potential "significant impact" on the quality of the human environment. Section 102(c). Permits under Sections 402 and 404 of the Clean Water Act are examples of the types of federal action that could require preparation of an EIS.

All applicants for NPDES permits are not subject to NEPA requirements. Section 511(c), CWA, specifically limits the applicability of NEPA to "new sources" (and permits for publicly owned treatment works). EPA regulations for new source NPDES reviews, including EIS evaluation, are found at 40 C.F.R., Part 6 (1977).

The Corps has also issued regulations pertaining to NEPA review for permits to be issued under Section 404. 42 Fed. Reg. 37152 (July 19, 1977) (to be codified in 33 C.F.R. § 325.4).

New sources requiring NPDES permits and permits for the discharge of dredged or fill material under Section 404 may be subject to NEPA review by EPA and the Corps. In this situation, current CEQ guidelines allow for joint preparation of a single EIS satisfying the requirements of both agencies. Supervisory responsibility may be assigned to the "lead agency" which is determined according to a number of factors, such as the time sequence in which the agencies become involved, the magnitude of their respective involvement, and their relative expertise with respect to the project's environmental effects. 40 C.F.R. § 1500.7(b)(1977).

D. CONTROLS OVER RADIOACTIVE MATERIAL

> Atomic Energy Act. [42 U.S.C. § 2011 et seq., as amended by the Atomic Energy Act of 1954, Chapter 1073, 69 Stat. 919 (AEA).] (Unless otherwise specified, citations will be to sections of the current U.S. Code version of the AEA, as amended.)

1. Licensing

One of the purposes of the AEA is to provide a program for government control of the possession, use and production of atomic energy and special nuclear material, whether owned by the government or others. 42 U.S.C. § 2013(c). All licensing and related regulatory functions under the AEA initially held by the Atomic Energy Commission were transferred to the Nuclear Regulatory Commission (NRC) under the Energy Reorganization Act of 1974. Id. § 5841(f) (Pub. L. 93-438, as amended by Pub. L. 94-79).

NRC regulations require a specific or general license for a person to receive title to, receive, possess, use, transfer, deliver or import any "source material" after removal from its place of deposit in nature. 10 C.F.R. § 40.3 (1977). "Source material" means:

> . . . (1) uranium or thorium or any combination thereof, in any physical or chemical form or (2) ores which contain by weight one twentieth of one percent (0.05%) or more of (i) uranium (ii) thorium or (iii) any combination thereof.

Id. § 40.4(h) (1977). If uranium extracted from phosphoric acid in Florida meets these threshold requirements, NRC licensing requirements are applicable.

The AEA further provides, however, that the NRC may enter into agreements with individual states providing for the discontinuance of NRC regulatory authority with respect to source materials and other specified radioactive substances. 42 U.S.C. § 2021. Florida has obtained approval of its program for the regulation of radioactive materials and thus is an "agreement state." 29 Fed. Reg. 9463 (July 10, 1964). Details of the Florida licensing program for source material are discussed below.

2. Enforcement

Before relinquishing authority to an "agreement state," the NRC must find that the state program is "adequate to protect the public health and

safety with respect to the materials covered by the proposed agreement . . . ." 42 U.S.C. § 2021(d)(2). The NRC upon its own initiative (after reasonable notice and opportunity for hearing to the state) or upon the request of the governor of a state, may terminate or suspend its agreement with the state and reassert licensing and regulatory authority if necessary to protect the public health and safety. Id. § 2021(j).

The Energy Reorganization Act of 1974 further requires the reporting of certain potential safety hazards to the NRC. The reporting requirements apply to individual directors or responsible officers of firms constructing, owning, operating or supplying the components of any facility or activity which is licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954. Id. § 5846.

E. OTHER STATUTORY CONTROLS

Congress has enacted several laws in recent years which may potentially require permitting procedures for the Florida phosphate industry. Three of the most pertinent recent enactments are summarized below for general information although implementing regulatory programs have not yet been finalized. Other statutes are identified.

1. Safe Drinking Water Act. [42 U.S.C. § 300F et seq.; Pub. L. 93-523 and Pub. L. 95-190 (SDWA).] (Unless otherwise specified, citations will be to sections of the SDWA, as amended.)

One of the primary purposes of the SDWA is the protection of underground sources of drinking water. Establishment of underground injection control programs is provided for this purpose. Section 1421.

"Underground injection" is defined as "the subsurface emplacement of fluids by well injection." Section 1421(d)(1). EPA is required to list in the Federal Register each state that will be required to develop an underground

injection control program. Section 1422(a). This listing will be on a phased basis. Although eventually all states will be designated, the first states named will be those with the greatest dependency upon underground water supplies and with the greatest incidence of underground injection. 41 Fed. Reg. 36731 (August 31, 1976).

EPA is required to develop guidelines, requirements and procedures for a state underground injection control program. Section 1421(a)(1). The regulations have been proposed. 41 Fed. Reg. 36736 (August 31, 1976) (to be codified in 40 C.F.R. § 146). The proposal establishes performance standards, permit provisions and other requirements aimed at assuring that underground injection procedures will not result in forcing additional treatment to waters in an affected aquifer in order to comply with national primary drinking water standards promulgated under the SDWA.

EPA could define underground injection in such a manner as to include industrial wastewater impoundments. See generally 41 Fed. Reg. 36732 (August 31, 1976). This may have an effect upon clay settling areas used in phosphate rock mining and upon gypsum and cooling ponds used in phosphate fertilizer manufacturing. Because the underground injection control regulations have not yet been finally promulgated, it is impossible to predict accurately the effect of the SDWA upon the phosphate industry.

2. Resource Conservation and Recovery Act. [42 U.S.C. § 6901 et seq.; Pub. L. 89-272; Pub. L. 91-512; Pub. L. 93-14; Pub. L. 93-611; and Pub. L. 94-580 (RCRA).] (Unless otherwise specified, citations will be to sections of the RCRA, as amended).

The RCRA provides in part for "cradle to grave" regulatory controls over "hazardous waste." A "hazardous waste" is any solid waste or combination of solid wastes which may pose a substantial present or potential hazard to human health or the environment under certain conditions. Section 1004(5).

Under the RCRA, EPA must adopt regulations that establish criteria for identifying the characteristics of hazardous wastes. In addition, regulations must be promulgated that identify hazardous waste characteristics and list particular hazardous wastes. Section 3001.

EPA is further required to develop regulations that will establish requirements and limitations upon persons who generate and transport hazardous waste as well as persons who treat, store or dispose of such substances. Sections 3002, 3003, 3004. As of this writing, EPA is in the process of drafting implementing regulations. For example, regulations relating to transportation of hazardous wastes under Section 3003 have been proposed. 43 Fed. Reg. 18510 (April 28, 1978) (to be codified in 40 C.F.R., Part 250).

It is not clear if any of the wastes generated by the mining and beneficiation of phosphate rock or by the production of phosphate fertilizers will be deemed hazardous wastes subject to RCRA regulations. [It should be noted, however, that even if solid wastes are not "hazardous," RCRA may ultimately require that land disposal of such wastes be in areas that meet the requirements for "sanitary landfills" being developed under RCRA. See 43 Fed. Reg. 4942 (February 6, 1978) (to be codified in 40 C.F.R., Part 257).]

3. Surface Mining Control and Reclamation Act. [30 U.S.C. § 1201 et seq.; Pub. L. 95-87 (SMCR).] (Unless otherwise specified, citations will be to sections of the SMCR).

Congress recently enacted the SMCR. Although SMCR deals principally with coal mining operations, Section 102(j) describes an additional purpose of the legislation as follows:

> provide a means for the development of the data and analyses to establish effective and reasonable regulation of surface mining operations for other minerals.

Under Section 709 the Chairman of CEQ is directed to contract for a study of reclamation standards for surface mining of "other minerals". This study is to

be submitted to the President and Congress within 18 months of enactment of the law, i.e., January 3, 1979. Section 709(b).

4. Miscellaneous Statutes

There are other statutes which, directly or indirectly, can affect environmental review and permitting. Identification of a number of these statutes is warranted, although a discussion of the requirements and potential applicability is beyond the scope of this review:

The Rivers and Harbors Act of 1899, 33 U.S.C. § 401 et seq.
The Fish and Wildlife Coordination Act, 16 U.S.C. § 1661 et seq.
The Ports and Waterway Safety Act of 1972, 33 U.S.C. § 1221 et seq.
The Marine Protection, Research and Sanctuaries Act of 1972, 33 U.S.C. § 1413.
The Noise Control Act of 1972, 42 U.S.C. § 4901 et seq.
The Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 et seq.
The Marine Mammal Protection Act of 1972, 16 U.S.C. § 1361 et seq.
The Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.
The Wild and Scenic Rivers Act, 16 U.S.C. § 1274 et seq.
The Soil and Water Resources Conservation Act of 1977, 16 U.S.C. § 2001
The Toxic Substances Control Act of 1976, 15 U.S.C. § 2601 et seq.
The Deepwater Port Act of 1974, 33 U.S.C. § 1501 et seq.
The National Historic Preservation Act of 1966, 16 U.S.C. § 470

SECTION 2

STATE OF FLORIDA

A. AIR QUALITY

Florida Air and Water Pollution Control Act. [Chapter 403, Florida Statutes (1977).] (Unless otherwise specified, citations will be to sections of the Florida Air and Water Pollution Control Act. All citations in Parts II and III infra, will be to Florida Statutes (1977), unless otherwise specified.)

Under the Florida Air and Water Pollution Control Act, no stationary installation which will reasonably be expected to be a source of air or water pollution shall be operated, maintained, constructed, expanded or modified without an appropriate and currently valid permit issued by the Florida Department of Environmental Regulation (Department or DER), unless exempted by rule. Section 403.087(1). The Department shall issue permits to construct, operate, maintain, expand or modify an installation reasonably expected to be a source of pollution only when it determines that the installation is provided or equipped with pollution control facilities that will abate or prevent pollution to a degree allowing compliance with applicable standards. Section 403.087(4).

Standards for sources of air pollution have been promulgated by DER, and are found in Chapter 17-2, Florida Administrative Code (FAC) (throughout Parts I and II of this review citations to state agency rules will be to FAC, unless otherwise noted). This Chapter, which has recently undergone extensive revision, establishes ambient air quality standards, emission limitations, procedures for prevention of significant deterioration of air quality, and other regulatory devices for the control of air pollution.

Chapter 17-2 is intended to eliminate, prevent and control air pollution, to achieve and maintain such levels of air quality as will protect human health and safety, to prevent injury to plant and animal life and property, to foster the comfort and convenience of people, to promote the economic and social development of the state, and to facilitate the enjoyment of the natural attractions of Florida. The regulations further set forth DER's prevention of significant deterioration (PSD) policy and establish ambient air quality standards and emission standards. Rule 17-2.01. Emission limitations include "general prohibitions" and specific limitations applicable to certain types of facilities.

Prohibited acts, established by Rule 17-2.05, include emission of air pollutants in excess of certain opacity standards [Rule 17-2.05(1)] and emission of particulate matter from any air pollutant source in quantities exceeding certain "process weight" ratios (percentage of emissions per quantity of product processed) [Rule 17-2.05(2)]. The process weight limitations apply "except as otherwise provided for in this Chapter for specific emission limiting standards of particulate matter from specified source." Id. Thus, if emission limitations applicable to a certain facility include particulate standards, those particulate standards supersede the process weight restrictions in Rule 17-2.05.

Chapter 17-2 also contains a general prohibition against emission of particulate matter from any source, including but not limited to vehicular

movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emissions. Rule 17-2.05(3).

As noted above, stationary sources may be subject to specific emission limitations. Such limitations have been established by rule for sulfuric acid plants and phosphate processing (chemical) plants. Rule 17-2.05(6).

In addition to specific point source limitations, Florida administers a rule for the prevention of significant deterioration of air quality (PSD). The policy applies to "major emitting facilities" which are defined as

> Any building, structure, installation or source which has the potential to emit 100 tons per year or more of any air pollutant and which falls within one of the following categories:
>
> . . .
>
> (k) Sulfuric acid plants
>
> . . .
>
> (o) Phosphate rock processing plants . . .
>
> [Or] any other building, structure, installation or source which has the potential to emit 250 tons per year or more of any air pollutant.

Rule 17-2.02(20). In order to prevent significant deterioration of air quality, only limited increases in the ambient air concentration of sulfur dioxide and particulate matter shall be allowed. The maximum allowable increases for a particular area of the state are determined according to the "class" designation assigned to that area. The entire state is designated as "Class II," with certain limited exceptions. Rule 17-2.04(1). These regulations are designed to complement and implement requirements of the federal CAA.

The procedure to determine whether a proposed new source would meet the allowable increment is not clearly spelled out in the rule. Briefly, however, the following steps would be followed:

(1) The "baseline" air quality is determined. Baseline is defined as "the applicable ambient concentration levels existing during 1974 plus any additional concentrations for the area of impact estimated to result from sources permitted for construction but not operating prior to January 1, 1975." Rule 17-2.02(6).

(2) The "area of impact" is determined for the proposed facility. This area is defined as "the geographical region surrounding a facility and extending from the facility out to a distance of 50 kilometers or to a distance where the impact of emissions from the facility decreases to less than one microgram per cubic meter annual arithmetic average, whichever distance is less." Rule 17-2.02(5).

(3) The proposed emission of sulfur dioxide or particulates from the new facility is determined and compared to the allowable increment (over baseline) established for the "class" designation for that area of the state.

No increase in pollutant concentration over the baseline is allowed unless best available control technology (BACT) is employed to control emissions from the facility. Rule 17-2.04(6)(c). BACT is defined as

> An emission limitation based upon the maximum degree of reduction of each pollutant emitted or resulting from any major emitting facility or major modification which the

> Department, taking in account, on a case-by-case basis energy, environmental and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including but not limited to fuel cleaning or treatment, innovative fuel combustion, or other techniques for control of each such pollutant.

Rule 17-2.02(7).

Procedures for obtaining necessary air pollution permits are found in Chapter 17-4. A DER construction permit is necessary before constructing, expanding or modifying any potential source of air pollution. Upon completion of construction, the applicant must apply for an operating permit and provide additional information, including a "certification of construction completion . . . noting any permit deviations." Rule 17-4.22.

Operating permits are required by the rules to specify: (1) the manner, nature, volume and frequency of the emission permitted, (2) proper operation and maintenance of the pollution abatement facility by qualified personnel in accordance with standards established by the Department, and (3) such additional conditions and requirements that the Department may deem necessary to preserve and protect the quality of the air. Operating permits may be renewed upon application. Rule 17-4.23.

B. WATER QUALITY

> Florida Air and Water Pollution Control Act [Chapter 403, Florida Statutes (1977)] and Chapter 253, Florida Statutes (1977).

1. Construction and Operation of Potential Sources of Water Pollution

As noted above, no stationary installation which will reasonably be expected to be a source of air or water pollution shall be operated, maintained, constructed, expanded or modified without an appropriate and currently valid permit issued by the DER, unless exempted by Department rule. Permits

for water pollution sources are limited to five years in duration, but may be renewed. Section 403.087. DER jurisdiction includes groundwater as well as surface water. Section 403.062.

DER rules promulgated pursuant to Chapter 403 provide both water quality standards and effluent discharge limitations. Water quality standards are both general and specific.

General standards are found in Rule 17-3.02 which provides that waters within the state shall be free from substances which are settleable, floating, deleterious or toxic. More specific water quality standards found in Rule 17-3.05 include limitations on the following parameters:

Fluoride	Cyanide or Cyanates
Chlorides	Copper
Turbidity	Zinc
Dissolved Oxygen	Chromium
Biological Oxygen Demand	Phenolic Type Compounds
Dissolved Solids	Lead
Specific Conductance	Iron
Radioactive Substances	Arsenic
pH	Oils and Greases
Detergents	
Mercury	
Heat	

Finally, the waters of the state are divided into various "classes", and specific criteria for each class are set forth in Rules 17-3.07 through 17-3.11.

DER has promulgated effluent discharge limitations to operate in tandem with water quality standards. Specific effluent limitations for

industrial wastes discharged to surface waters have been adopted by DER. These include various EPA standards (incorporated by reference) such as guidelines for phosphate fertilizer manufacturing (40 C.F.R., Part 418).

DER has adopted a specific state rule for effluent discharges from phosphate mining facilities which is more stringent than the federal standards. Rules 17-3.04(2)(a)2.a. & 17-3.04(2)(a)2.a.(xxv). These limitations and standards are currently the subject of judicial review.

Drainage well permits may also be required by DER under Rule 17-3.12 through 17-3.16.

Chapter 17-3, which includes water quality standards, is currently undergoing extensive revision.

As noted above, permit procedures for potential sources of pollution are found in Chapter 17-4. These procedures include issuance of construction permits (Rule 17-4.21), operating permits for new sources (Rule 17-4.22) and, more specifically, operating permits for water pollution sources (Rule 17-4.24).

2. Dredging and Filling

In addition to the provisions outlined above for water quality, DER has promulgated rules applicable to "dredging and filling" in waters of the state or various associated wetlands. Dredging or filling in navigable waters of the state is regulated by Chapter 253 and Rule 17-4.29. Dredging in other waters of the state and wetlands is regulated by Chapter 403 and Rule 17-4.28. The latter provisions are the most pertinent when considering phosphate operations.

Under state rules, "dredging" is defined as the excavation, by any means, of "submerged lands" or the "transitional zone of a submerged land." Dredging may also be the excavation or creation of a water body which is or is

to be connected to "waters of the state." Rule 17-4.02. "Filling" is the deposition, by any means, of "materials" onto "submerged lands" or the "transitional zone of a submerged land." Rule 17-4.02(16).

Dredging or filling activites to be conducted in or connected directly to or via an excavated water body (or series thereof) in the following categories require prior permit approval:

(1) rivers and natural tributaries thereto;

(2) streams and natural tributaries thereto;

(3) bays, bayous, sounds, estuaries, and natural tributaries thereto;

(4) natural lakes, except those owned entirely by one person; and except for lakes that become dry each year and are without standing water together with lakes of no more than ten (10) acres of water area at a maximum average depth of two (2) feet existing throughout the year;

(5) Atlantic Ocean out to the seaward limit of the State's territorial boundaries;

(6) Gulf of Mexico out to the seaward limit of the State's territorial boundaries; and

(7) natural tributaries do not include intermittant [sic] natural water courses which act as tributaries only following the occurence [sic] of rainfall and which do not contain contigous [sic] areas of standing water . . . .

Rule 17-4.28(2).

"Submerged lands" are lands covered by the "waters of the state" listed above, including lands contiguous to said waters where any of a number of vegetational species (set forth in the rules) constitute the dominant plant community. Rule 17-4.02(17). Likewise, the "transitional zone of a submerged land" is that area of land between a submerged land (as defined above) and "upland," upon which any of a number of listed vegetational species constitute the dominant plant community. Rule 17-4.02(19).

DER recognizes that the natural border of "waters of the state" may be difficult to establish because of seasonal fluctuations in water levels and other characteristics unique to a given terrain. The expressed interest of the vegetation indices in Rules 17-4.02(17) & (19) is to guide in the establishment of the border of water bodies listed in the dredge and fill rule. Furthermore,

> [i]t is the intent of this rule to include in the boundaries of such water bodies areas which are customarily submerged and exchange waters with a recognizable water body as described in Section 17-4.28(2) . . . . Isolated areas which infrequently exchange water with a described water body . . . and/or provide only insignificant benefit to the water quality of a water body . . . are intended to be defined as uplands and excluded from the definition of 'submerged lands'. The vegetation indices defining 'submerged lands' and 'transitional zone of a submerged land' are presumed to accurately delineate said submerged lands and transitional zones.

Rule 17-4.28(2)(g).

The 1977 Florida Legislature enacted Chapter 77-170, Laws of Florida, providing that the extent of dredge and fill jurisdiction may be defined by species of plants or soils which are characteristic of those areas subject to regular and periodic inundation by waters of the state. Any amendments to existing vegetation indices or any addition of soil indices must be approved by the legislature.

Dredging or filling activities to be conducted in or connected directly to "waters of the state" (including submerged lands and transitional zones) are subject to DER permit procedures. Under Rule 17-4.28(3), an applicant for a dredge and fill permit or for federal certification for a dredging or filling activity (Section 401, CWA) must affirmatively provide reasonable assurance that the short-term and long-term effects of the activity will not result in violations of state water quality standards (Chapter 17-3). All dredging or filling activities conducted in or connecting to waters of the

state shall comply with the water quality standards even if a permit is not required. Rule 17-4.28(1).

C. ENFORCEMENT OF AIR AND WATER QUALITY PROVISIONS

Under Section 403.161, the following are considered to be violations of the Florida Air and Water Pollution Control Act and are prohibited:

(1) Causing pollution, except as otherwise provided in Chapter 403, so as to harm or injure human health or welfare, animal, plant or aquatic life, or property [Section 403.161(a)];

(2) Failing to obtain any permit required by Chapter 403 or by rules or regulations, or to violate or fail to comply with any rule, regulation, order, permit or certification adopted or issued by the Department pursuant to its lawful authority [Section 403.161(b)]; and

(3) Knowingly making any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under Chapter 403, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method for monitoring required by Chapter 403 or by rules, regulations or orders issued thereunder [Section 403.161(c)].

DER has statutory authority to exercise a broad range of judicial and administrative remedies for the violations specified above.

1. Administrative Remedies

DER may institute administrative proceedings to establish liability and recover damages for injury to the air, water or property of the state (including animal, plant or aquatic life) caused by any violation. Judgment for the amount of damages determined administratively may be entered in any court having jurisdiction thereof and may be enforced as any other judgment. Section 403.121(2).

Furthermore, if DER has reason to believe that a violation has occurred, it may institute administrative proceedings to order the prevention, abatement, or control of the conditions creating the violation or other appropriate corrective action. Id. DER orders may specify a reasonable time for compliance. Section 403.151.

The administrative remedies provided in Chapter 403 are not a prerequisite to the institution of a civil action. Likewise, failure by DER to serve a notice of violation is not be deemed a bar to judicial relief. Section 403.121(1)(c).

2. Judicial Remedies

DER may institute civil actions to establish liability and to recover damages for injury to the air, waters or property of the state (including animal, plant and aquatic life) caused by any violation. It may also institute a civil action to impose and recover civil penalties for each violation. Each day during a portion of which such violation occurs constitutes a separate offense. Section 403.121(1).

Under Section 403.141(1), violators are liable for: (1) any damage to the air, waters or property of the state (including animal, plant or aquatic life); (2) reasonable costs and expenses of investigation; (3) costs of controlling and abating the source and the pollutants; and (4) costs of restoring the air, water and property of the state (including animal, plant and aquatic life). Violators are also subject to the judicial imposition of a civil penalty for each offense in an amount of not more than $10,000 per offense.

DER is also authorized to institute a civil action for injunctive relief to: (1) require compliance with Chapter 403 or any rule, regulation, permit certification or order; (2) enjoin any violation specified in Section 403.161; and (3) seek injunctive relief to prevent irreparable injury to the

air, waters and property of the state and protect human health, safety and welfare. Section 403.131.

Criminal penalties are also provided by Chapter 403. Willful or negligent violations of Section 403.161(1)(a) or (b) [p. 38 supra] are punishable as misdemeanors of the first degree by a fine of not less than $2,500 or more than $25,000, imprisonment for one year, or both, for each offense. Each day during any portion of which a violation occurs constitutes a separate offense. Section 403.161(3).

Any person who commits a violation specified in Section 403.161(1)(c) shall be guilty of a misdemeanor of the first degree punishable by a fine of not more than $10,000 or six months in jail, or both, for each offense. Section 403.161(4).

The Florida Environmental Protection Act of 1971 provides additional judicial remedies for enforcement of laws, rules and regulations for the protection of air, water and other natural resources of the state. Section 403.412(2). Suits may be brought by the Department of Legal Affairs, by political subdivisions or municipalities of the state, or by citizens of the state and may be maintained against governmental agencies or authorities to compel such entities to enforce environmental laws, rules and regulations. Suits may also be maintained against natural or corporate persons, agencies or authorities to enjoin violations of environmental laws, rules or regulations. Id.

D. POTABLE WATER SUPPLIES

Florida Safe Drinking Water Act.
[Chapter 403, Part VI, Florida Statutes (1977).]

The federal SDWA was structured so that primary responsibility for public water system programs could be delegated to states demonstrating the capability of administering an acceptable program. The Florida Safe Drinking

Water Act (Act) was adopted in 1977 to facilitate the assumption of primacy by the state. Chapter 403, Part VI. Soon thereafter, DER promulgated appropriate regulations, and a "Determination of Primary Enforcement Responsibility" was issued by EPA (Region IV). 43 Fed. Reg. 2665 (January 18, 1978).

1. Permitting

The Florida Safe Drinking Water Act and regulations promulgated thereunder apply to all "public water systems" with certain exceptions. Rule 17-22.102. A "public water system" is defined as a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. Rule 17-22.103(4).

Systems supplying potable water to phosphate operations may qualify as "public water systems" within the definition of the Florida Safe Drinking Water Act, and thus be subject to state regulation. Applicable rules pertain to construction (Rule 17-22.106), operation and maintenance (Rule 17-22.107) and water quality (Rule 17-22.104).

Public water systems are subdivided into "community" and "non-community" systems. A community system serves year-round residents while a noncommunity system serves nonresident transients. Rule 22-1.03(5) & (6). Industrial facilities (including phosphate mines and chemical plants) that provide potable water for their employees are noncommunity systems. In general, regulatory controls over noncommunity systems are less extensive than thoss applicable to community systems.

General supervision and control over all private water systems and public water systems not covered or included in the Florida Safe Drinking Water Act has been reserved to the State Department of Health and Rehabilitative Services (HRS). Rule 17-22.102.

2. Enforcement

At any reasonable time DER may enter, take water samples from, or inspect any property, premises or place (except a private residence) on or at which a public water system is located or is being constructed or installed, for the purpose of ascertaining the state of compliance with the law or with rules or orders of DER. Section 403.858.

The Florida Safe Drinking Water Act further requires that operators of public water supply systems notify public health departments, DER and the local communications media of various types of noncompliance with the Act and implementing regulations. For example, notification must be given if the system:

(1) Is not in compliance with drinking water regulations;

(2) Fails to perform required monitoring;

(3) Is subject to a variance granted for an inability to meet maximum contaminant levels;

(4) Is subject to an exemption; or

(5) Fails to comply with requirements prescribed by a variance or exemption. Section 403.857.

Notice must also be published in a newspaper of general circulation.

Under the Florida Act, a "supplier of water" is subject to various prohibitions. A supplier of water is defined as any person who owns or operates a public water system. Section 403.852(8). Prohibitions include the following:

(1) Failure by a supplier of water to comply with the notice requirements outlined above, or dissemination by such supplier of any false or misleading information with respect to notices required by the Act or with respect to remedial actions being undertaken to achieve compliance;

(2) Failure by a supplier of water to comply with regulations adopted pursuant to the Act, or with any conditions for variances or exemptions authorized by the Act;

(3) Failure by any person to comply with any order issued by DER pursuant to the Act;

(4) Failure by a supplier of water to allow any duly authorized representative of DER or HRS to conduct inspections;

(5) Submission of false statements or representations in any application, report, etc.; and

(6) Failure by a supplier of water to comply with any approved plans and specifications or condition to the approval of plans and specifications. Section 403.859.

A fine, not to exceed $5,000 for each day in which a violation occurs, may be imposed by a court of competent jurisdiction upon any person who commits a violation listed in paragraphs 1, 2, 4, 5, or 6 above. Furthermore, a fine not to exceed $5,000 for each day in which a violation occurs or continues may be imposed by a court of competent jurisdiction upon any person who violates, or fails or refuses to comply with any order issued by DER pursuant to the Act. Section 403.860.

DER may initiate an administrative proceeding to establish liability and require corrective action. A violator may be required to pay the state for its reasonable costs and expenses in investigating the violation and prosecuting the matter. DER may also institute a civil action in any court of appropriate jurisdiction for injunctive relief to prevent violations of any order, rule or regulation issued pursuant to the Act. Id.

Special provisions are set forth where imminent hazards may exist. Authorized procedures include the adoption of emergency rules and issuance of

corrective orders, or the commencement of a civil action for appropriate relief such as a restraining order or permanent or temporary injunction. Section 403.855.

The Florida Safe Drinking Water Act provides that the HRS may issue corrective orders if it finds that any private water system or public system not covered by the Safe Drinking Water Act constitutes a nuisance or menace to the public. Ch. 77-337, § 17, Laws of Florida. HRS may also utilize additional enforcement powers found in Chapter 381, Florida Statutes.

E. CONTROL OF SOLID WASTE

Florida Resource Recovery and Management Act of 1974.
[Chapter 403, Part IV, Florida Statutes (1977).]

Under the Florida Resource Recovery and Management Act of 1974, management of solid waste may be subject to permit procedures. No permit is required, however, for various activities, including on-site disposal by persons of solid waste resulting from their own activities on their own property. This exemption is conditioned upon the absence of any public nuisance or condition adversely affecting the public health, and assumes the activity does not violate other state or local laws, ordinances, rules, regulations or orders. Section 403.707(2).

F. WATER RESOURCES

Florida Water Resources Act of 1972.
[Chapter 373, Florida Statutes (1977).]

The Florida Water Resources Act of 1972 (Act) provides for a state water resource plan and for the regulation of various types of water usage. The legislature recognized that the water resource problems of the state vary from region to region, both in magnitude and complexity. The Act vests in the DER the power and responsibility to accomplish the conservation, protection, management and control of the waters of the state and provides for delegation

of appropriate powers from DER to various "water management districts" with "sufficient flexibility and discretion" to accomplish the goals of the Act. Although DER may exercise any power established under Chapter 373, the legislature intended for such authority to be delegated to the governing board of a water management district to the greatest extent practicable. Section 373.016(3).

The Southwest Florida Water Management District (SWFWMD) exercises regulatory jurisdiction over substantially all of the phosphate mining and chemical industry, both existing and proposed. SWFWMD jurisdiction extends over several counties, including all of Hillsborough, Manatee, Sarasota, Hardee and DeSoto Counties, substantially all of Polk County and a large portion of Charlotte County (including the areas around Charlotte Harbor).

1. Permitting Requirements

SWFWMD administers regulations for well construction, consumptive use of water, activities in "works of the district" (including various surface watercourses) and management and storage of surface waters. These requirements are discussed in more detail below.

a. Construction of Wells

A permit is required from SWFWMD before any "water well" or test or foundation hole may be constructed, repaired, modified or otherwise altered. Rule 16J-3.06(3). A "water well" means any artificial hole in the ground, on submerged or unsubmerged land, having a diameter of not less than 2 inches or more than 120 inches and intended to produce or accept water or to search for water. Rule 16J-3.02(1).

b. Consumptive Use

A SWFWMD consumptive use permit (CUP) is required under the following conditions:

(1) If the withdrawal during any single day will exceed one million (1,000,000) gallons or if the withdrawal is to exceed one hundred thousand (100,000) gallons average per day on an annual basis.

(2) If the withdrawal is from a well having an inside diameter of six inches (6") or more.

(3) If the withdrawal equipment or other facility has a capacity of more than one million (1,000,000) gallons per day.

(4) If the withdrawal is from a combination of wells or other facilities or of both, having a combined capacity of more than one million (1,000,000) gallons per day.

Rule 16J-2.03(1). These thresholds apply to withdrawals from groundwater, surface water, or a combination of both.

Applications for less than 100,000 gallons per day may be considered without a hearing, under certain circumstances. Section 373.229(3). All CUP applications, however, are subject to public notice before approval. Section 373.116.

The applicant for a SWFWMD CUP carries the burden of demonstrating that the intended use will be reasonable and beneficial, consistent with the public interest and not interfere with any legal use of water existing at the time of application. Rule 16J-2.11(1). Issuance of the permit will be denied if the intended withdrawal would cause any of the following results:

(1) Violation of minimum regulatory levels established for the flow of a stream or other watercourse, for the potentiometric surface or for surface water;

(2) Saltwater encroachment; or

(3) Lowering of the water table so that the lake stages or vegetation will be adversely and significantly affected on lands other than those owned, leased, or otherwise controlled by the applicant. Rule 16J-2.11(2).

The CUP will also be denied if the amount of water consumptively used will exceed the "water crop" on lands owned, leased or otherwise controlled by the applicant. Rule 16J-2.11(3). According to a statement of policy recently adopted by the Board of Governors of SWFWMD, the assumed size of the water crop throughout the District is 1,000 gallons per acre per day. The actual water crop for a specific area may be significantly larger or smaller than this amount. The actual amount of the water crop for a particular area depends upon rainfall and evapotranspiration rates, which vary from area to area within the district. Rule 16J-2.111.

The proposed withdrawal of water must not reduce the rate of flow of a stream or other water course by more than five percent at the time and point of withdrawal. It must not cause the level of the potentiometric surface under lands not owned, leased or otherwise controlled by the applicant to be lowered by more than five feet, nor cause the level of the water table of such lands to be lowered by more than three feet, nor cause the level of the surface of water in any lake or other impoundment to be lowered by more than one foot unless the lake or impoundment is wholly owned, leased or otherwise controlled by the applicant. Finally, the withdrawal must not cause the potentiometric surface to be lowered below sea level. Rule 16J-2.11(4).

For good cause shown, SWFWMD may grant exceptions to criteria listed above, when after consideration of all data presented, including economic information, it finds that an exception is consistent with the public interest. Rule 16J-2.11(5).

In addition to permitting withdrawals of water, SWFWMD may also approve "recharge wells" which drain water from upper strata (i.e., water table or overburden) to lower formations. Recharge wells, as a water management tool, may be required as a condition of consumptive use permits.

c. "Work of the District"

SWFWMD rules define "Work of the District" as "any lake or other impoundment, or stream or other watercourse, control structure, or other facility, owned and maintained by the District or adopted by the Governing Board as a work of the District." Rule 16J-1.002(2). The term "tributaries" means

> the contributing streams and other watercourses, including brooks, rills and rivulets, extending upstream to the point where water usually begins to flow in a regular channel, with an alveus or bed, and banks or sides, or to the point where the lines of ordinary high water marks converge, whichever extends the farthest upgradient.

Rule 16J-1.002(1).

A number of rivers and other surface water bodies have been specified under SWFWMD rules as a "Work of the District." These include the Peace River, Alafia River and Little Manatee River, their natural floodway and tributaries and connecting channels, canals, etc. Rule 16J-1.03.

Unless expressly exempted, a SWFWMD permit is required to connect to, withdraw water from, discharge water into, place construction within or across, or otherwise make use of a Work of the District or to remove any facility or otherwise terminate such activity. Rule 16J-1.051.

To obtain a "Work of the District" permit, the activity must be reasonable and beneficial, and not inconsistent with the public interest. Rule 16J-1.06(3). Issuance of a permit will be denied if the activity:

(1) Will place fill material or any non-water use related structure within the mean annual floodplain of a lake or other impoundment, or of a stream or other watercourse.

(2) Will cause significant adverse effects on lands not owned, leased or otherwise controlled by the applicant by drainage or inundation.

(3) Will restrict or alter the rate of flow of a stream or other watercourse within a floodplain of a twenty-five (25) year flood unless the land is owned, leased or otherwise controlled by the applicant.

(4) Will extend beyond a line of encroachment established by the Board.

(5) Will cause an increase or decrease in the rate of flow of a stream or other watercourse by five percent (5%) or more.

(6) Will cause an increase in the peak rate of flow or total volume of storm runoff by ten percent (10%) or more from lands owned, leased or otherwise controlled by the applicant.

Rule 16J-1.06(4).

The Board for good cause shown may grant exceptions to the provisions listed in Rule 16J-1.06(4) after consideration of all data presented, including economic information, provided that the Board finds such exceptions are not inconsistent with the public interest. Rule 16J-1.06(5).

d. Management and Storage of Surface Waters

SWFWMD rules may require permits for construction, alteration, abandonment or removal of impoundments exceeding a certain size. See Rule 16J-4.04. The rules also provide an exemption for construction, operation or maintenance of any reservoir or other artificial structure which is located entirely within lands owned, leased or otherwise controlled by the user and which require water only for filling, replenishing and maintaining the water level thereof. Rule 16J-4.05(3). In light of this exemption, SWFWMD permits for management and storage of surface waters are generally not required for retention ponds and other impoundments constructed and maintained by the phosphate industry.

2. Enforcement

a. Administrative Remedies

Under Section 373.083, SWFWMD is authorized to issue orders for implementation or enforcement of any of the provisions of Chapter 373 or of SWFWMD regulations.

The Governing Board of SWFWMD or DER may revoke in whole or in part consumptive use permits for reasons set forth below:

> (1) For any material false statement in an application to continue, initiate or modify a use, or for any material false statement in any report or statement of fact required of the user . . . .
>
> (2) For willful violation of the conditions of the permit . . . .
>
> (3) For violation of any provision of Chapter 373 . . . .
>
> (4) For nonuse of the water supply allowed by the permit for a period of two years or more . . . unless the user can prove that the nonuse was due to extreme hardship caused by factors beyond his control . . . .

Section 373.243.

Administrative proceedings may be initiated by the Executive Director of the District, who is authorized to issue a written complaint if he has reason to believe that a violation of any provision of Chapter 373, District regulations, permits or orders has occurred, is occurring or is about to occur. Section 373.119. The complaint may order that necessary corrective action be taken within a reasonable time. The order becomes final unless the person or persons named in it request a hearing. Id.

The Florida Water Resources Act also includes provisions authorizing DER, the Governing Board, or any officer or agent thereof to enforce Chapter 373, rules or regulations promulgated thereunder, or orders issued thereunder to the same extent as any peace officer is authorized to enforce the law. Officers or agents of the Governing Board may obtain warrants directed to any sheriff, deputy or constable for the arrest of any offender. Section 373.603. Furthermore, it is the duty of every state and county attorney, sheriff, constable, police officer and other appropriate city and county official, upon request, to assist DER or the Governing Board in the enforcement of the provisions of Chapter 373 and the rules and regulations adopted thereunder.

b. Judicial Remedies

The Governing Board of SWFWMD may commence and maintain proceedings in any court of competent jurisdiction to enforce rules, regulations or orders (i.e., by mandatory injunction), to enjoin or abate violations, or to protect and preserve the water resources of the state. Sections 373.129, 373.136.

Section 373.613 further provides that

> Any person who violates any provision of this law or any rule, regulation or order adopted or issued pursuant thereto is guilty of a misdemeanor of the second degree . . . .

c. Enforcement Procedures Applicable in Specific Instances

Chapter 373 contains other enforcement procedures applicable to particular situations. For example, construction or enlargement of a canal or enlargement or deepening of a natural stream in such a manner as to permit salt water to move inland of an established saltwater barrier line is designated as a misdemeanor of the second degree. Each day that the movement of salt water continues constitutes a separate offense. Section 373.123.

Under other sections, individuals in control of artesian wells are subject to various prohibitions (i.e., if they knowingly allow the well to flow unnecessarily). Section 373.209. Similarly, specific penalties are provided for violation of the well construction code. Section 373.336.

G. LICENSING OF RADIOACTIVE MATERIAL

Florida Nuclear Code and Southern Interstate Nuclear Compact Law. [Chapter 290, Florida Statutes (1977).]

1. Permitting

As mentioned above, Florida has qualified as an "agreement state" and thus administers a program for licensing source material and other radioactive material in lieu of the NRC program. 29 Fed. Reg. 9463 (July 10, 1964).

Pursuant to the Florida Nuclear Code and Southern Interstate Nuclear Compact Law, the Governor of Florida has designated the state Department of Health and Rehabilitative Services as the administering state agency.

Applicable HRS regulations provide that

> . . . No person shall receive, possess, use, transfer or acquire radioactive material except as authorized in a specific or general license . . . or as otherwise provided in this part.

Rule 10D-56.331. Receipt, use, etc. of source material in any chemical mixture, compound, solution or alloy in which the source material is by weight less than one twentieth of one percent (0.05%) of the mixture, compound, solution or alloy is exempt from the HRS licensing requirement. Rule 10D-56.332(1). If material extracted from phosphoric acid by "uranium recovery units" exceed this threshold under normal conditions such operations associated with phosphate chemical plants in Florida could be subject to HRS control.

2. Enforcement

Rule 10D-56.138 provides that an injunction or other court order may be obtained prohibiting any violation of any provision of the Florida Nuclear Code or any regulation or order issued thereunder. Any person who willfully violates any provision of the statute or any applicable regulation or order may be guilty of a crime and, upon conviction, may be punished by a fine or imprisonment or both.

H. DEVELOPMENTS OF REGIONAL IMPACT

Florida Environmental Land and Water Management Act of 1972. [Chapter 380, Florida Statutes (1977).]

1. General Requirements

The Florida Environmental Land and Water Management Act of 1972 establishes procedures intended to protect the natural resources and environment of the state and to provide for orderly and well planned development.

Section 380.021. To this end, projects qualifying as developments of regional impact (DRI) are subject to review by various agencies, including the local government having jurisdiction over the project and the appropriate regional planning agency. Section 380.06.

A DRI is defined as "any development which, because of its character, magnitude or location, would have a substantial effect upon the health, safety or welfare of citizens of more than one county." Section 380.06(1). This general definition is supplemented by a list of "thresholds" for various types of developments. If a development exceeds the threshold, it is "presumed" to be a DRI. Chapter 22F-2.

Thresholds pertinent to phosphate operations include the following:

(1) Any proposed solid mineral mining operation which annually requires the removal or disturbance of solid minerals or overburden over an area, whether or not contiguous, greater than 100 acres or whose proposed consumption of water would exceed three million gallons a day is presumed to be a DRI.

(2) Any proposed industrial, manufacturing or processing plant under common ownership, or any proposed industrial park under common ownership, which provides sites for industrial, manufacturing or processing activity, which provides parking for more than 1,500 motor vehicles or occupies a site greater than one square mile is presumed to be a DRI.

According to statutory procedures, the regional planning agency (the regional planning council) and the local government having jurisdiction (city or county) review the application for development approval (ADA) concurrently. The county is required to set a public hearing on the ADA but cannot do so

until the regional planning council provides written notice that the application contains sufficient information to allow evaluation of the project. Section 380.06(7). After issuing such notice, the regional planning council must prepare a "report and recommendations" to the local government considering the nature of the impacts from the project upon the region's environment, natural resources, economy, public facilities, public transportation and housing. The planning council must also consider whether the development complies with "such other criteria for determining regional impact as the [council] shall deem appropriate, including, but not limited to the extent to which the development would create an additional demand for or additional use of energy . . . ." Section 380.06(2)(a)(6).

The timing established in the statute provides for local government hearings on the ADA after receipt of the regional planning council report and recommendations.

In considering whether the ADA should be approved, denied, or approved subject to conditions, the local government must consider the extent to which the development unreasonably interferes with the achievement of the objectives of an adopted state land development plan applicable to the area or is inconsistent with local land development regulations. The local government must also consider whether the development is consistent with the report and recommendations of the regional planning council. Section 380.06(11).

Projects qualifying as DRI's are not required to undergo the Chapter 380 review process if the developer's rights to undertake the project are "vested". Section 380.06(12). Rights may be vested, for example, if the proposed project had received necessary governmental approval prior to July 1, 1973. "Binding letters of interpretation" may be requested from the Florida Department of Administration, Division of State Planning (DSP) as to whether a particular project is vested. Section 380.06(4).

Binding letters may also be requested to determine whether a project qualifies as a DRI, or to determine whether there has been a "substantial deviation" from previously approved or vested projects. Id. "Substantial deviation" is defined as:

> . . . any change to the previously approved development of regional impact which creates a reasonable likelihood of additional adverse regional impact or any other regional impact created by the change, not previously reviewed by the regional planning agency.

Section 380.06(7)(g). If a developer proposes any change to a DRI meeting this definition, local government may require further review consistent with local procedures. Id. Changes on an approved or vested DRI required by conditions imposed in subsequent permits or approvals will not constitute a "substantial deviation". Section 306(7)(h)(7).

2. Enforcement

a. Administrative Remedies

Four parties are specifically provided the right of appeal from a local government development order: the owner, developer, regional planning agency and DSP. Appeals are taken to the Florida Land and Water Adjudicatory Commission (the Governor and Cabinet) which may grant or deny permission to develop pursuant to Chapter 380, and may attach conditions and restrictions to its decisions. The Florida Land and Water Adjudicatory Commission may designate a hearing officer to conduct the hearings who shall have the power to issue notices of hearings, subpoenas, and so forth. The hearing officer certifies recommendations, finding of facts, and a proposed order to the Adjudicatory Commission. Section 380.07.

b. Judicial Remedies

The DSP, all state attorneys, and all counties and municipalities are authorized to bring an action for injunctive relief, both temporary and permanent,

against any person or developer found to be in violation of the provisions of Chapter 380, or any rules, regulations or orders issued thereunder. Section 380.11.

I. RECLAMATION

Chapter 211, Florida Statutes (1977).

1. Requirements

Mining operators are required to institute and complete a reclamation and restoration program upon each "site of severance" (of phosphate) subject to the state severance tax. Section 211.32. The obligation to institute and complete such a program shall not apply to acres disturbed by the severance of solid minerals before July 1, 1975. (Legislative action in 1977 and 1978, however, has been directed at the status of these "old" lands.) Id. Criteria are set forth in both the severance tax law and in regulations of the Department of Natural Resources (DNR) requiring reclamation to specific state standards. E.g., Rule 16C-16.05. Prior to beginning work pursuant to a DNR program under the severance tax law, the taxpayer must obtain DNR approval of the reclamation and restoration program developed for the subject area. Rule 16C-16.03. Each taxpayer with an approved reclamation program on file with DNR must submit an annual reclamation report describing the progress made under the applicable reclamation program. Rule 16C-16.09.

Nothing in the severance tax law shall be deemed to preempt local ordinances that impose stricter land reclamation standards. Section 211.34. As discussed below, various county governments have enacted local mining ordinances containing reclamation standards.

2. Enforcement

Enforcement remedies available to DNR include civil actions in any court of competent jurisdiction for the purpose or obtaining injunctive relief

necessary to compel a taxpayer, or any other person or persons claiming a fee interest in land subject to reclamation, to comply with the mandatory reclamation provisions set forth in the Act. Section 211.32(j). The obligation to reclaim shall run with the land and be enforceable against any person claiming a fee interest in the land subject to said obligation. Section 211.32(k).

J. OTHER STATUTORY CONTROLS

This analysis is limited to laws pertinent to the licensing of phosphate mines and phosphate fertilizer manufacturing complexes. The following laws are beyond the scope of this review but could directly or indirectly impact the operation of new or existing phosphate operations:

Beach and Shore Preservation Act, Chapter 161, Florida Statutes.
Florida Aquatic Preserve Act of 1975, Sections 258.35-258.46, Florida Statutes.
Land Conservation Act of 1972, Chapter 259, Florida Statutes.
Florida Endangered and Threatened Species Act of 1977, Section 372.072, Florida Statutes.
Pollutant Spill Prevention and Control Act, Chapter 376, Florida Statutes.

SECTION 3

LOCAL REGULATION

A. POLK COUNTY

Polk County exercises control of phosphate mining and chemical operations through its "protective development regulations" (PDR), approved by the Board of County Commissioners on October 1, 1970. According to the PDR "statement of purpose and intent" the purpose of the ordinance is to protect the environmental liveability of the county and private property values, and to promote orderly growth, public economy and public health.

1. Permitting

Rezoning is not required per se prior to construction or operation of phosphate mining or chemical facilities. The "planned mining operations" district, as set forth in the PDR, is considered to be a secondary district with regulations and requirements to take effect upon commencement of activities. Prior to commencement, the regulations and requirements of the primary zoning district or districts control. The principal area of applicability of the "secondary district" includes all lands in Polk County lying both south of T26S and west of R27E. PDR art. IV, § 4-2.P-4.

Any operator contemplating phosphate mining and processing (beneficiation) activities must submit a mining site plan to the Board of County Commissioners (Board). Contents of the plan are specified in the PDR art. IV, § 4-2.P-5.1, and include the following:

(1) Boundaries of the mining site and total acreage;

(2) Location of processing plants and other permanent structures;

(3) Location of waste storage areas;

(4) Topographic map showing mining site and its relationship to any county watershed area;

(5) Location of permanent roads; and

(6) Reclamation program.

The mining site plan is then reviewed and acted upon by the Board. Upon approval, an operating permit is issued which authorizes the commencement of mining and processing activities in accordance with the mining site plan. Id., § 4-2.P-6.1.

Before an operating permit shall be issued, the operator must file with the County Commissioners a guarantee that required reclamation will be completed in compliance with the ordinance. Proof of financial responsibility or a performance bond must be provided. Id., § 4-2.P-10.

The PDR contains detailed reclamation criteria in Section 4-2.P-7. These criteria provide that areas mined or disturbed by mining shall be considered to be reclaimed if they include the following:

(1) Land areas not less than three feet above the normal ground water table graded to a level, gently rolling, sloping or terraced topography, with major continuous slopes not steeper than four to one in a way to minimize erosion (due to rainfall), break up long interrupted slopes, and be suitable for revegetation;

(2) Useable water bodies having a depth of not less than six feet;

(3) Slopes in transitional areas between the three foot land elevation and six foot lake depth which are not less than five to one; and

(4) Waste clay settling areas reasonably required by the operator and contained by earthen dams.

Surface areas disturbed by mining operations, which lie within five hundred feet of major highways, must be reclaimed not later than two years after they are mined. All other areas (except clay settling areas) shall be reclaimed not later than two years after completion of all actual mining activities on site.

Each year, operators must file an report reviewing the reclamation progress for the preceding calendar year and identifying lands expected to be mined and reclaimed during the current year. Reclamation must be completed within specific time periods and written acceptance of reclamation obtained from the Board of County Commissioners. This acceptance may be requested by the operator in writing. Id., § 4-2.P-9.

No building or structure shall be erected, moved, added to, or structurally altered without a building permit. Id. art. V, § 5-1.3. Construction of mining and processing installations, including dams (for retention areas), must comply with applicable state (DER) rules and regulations. Furthermore, each dam must be planted with vegetation that will tend to stabilize and to improve the visual quality of the dam. Id. art. IV, § 4-2.P-13.

No new chemical processing facilities may be constructed within one mile of the boundary of any municipality, but existing facilities may be modified or enlarged upon compliance with specifications and requirements adopted from time to time by DER. The construction of new chemical processing facilities, waste disposal areas incidental thereto, and reasonable modifications or enlargements thereof are allowed in all areas of the applicable "secondary district," provided that construction, modification or enlargement complies with the applicable DER rules. Id., § 4-2.P-12.

2. Enforcement

If the responsible administrative official finds that any of the provisions of the PDR are being violated, he must notify in writing the person responsible for such violation, indicating the nature of the violation and describing the action necessary for correction. He must order discontinuance of any illegal use of land, buildings, or structures, order discontinuance of any illegal improvements or uses, or take any other action authorized by the regulations to insure compliance with, or to prevent violations of, its provisions. Id. art. V, § 5-1.2.

Any person (including corporations) violating the terms of a permit required by the PDR or conducting activities without a permit required by the PDR shall be guilty of a misdemeanor of the second degree and, upon conviction, shall be subject to payment of a fine of not more than $500 or imprisonment for not more than 60 days, or both. Id., § 5-5.2.

B. HILLSBOROUGH COUNTY

1. Zoning

a. Requirements

On January 10, 1973, the Hillsborough County Board of County Commissioners adopted comprehensive zoning regulations (Zoning Ordinance). Portions of these regulations are applicable to the phosphate industry.

Mining is permitted within the "A-A" zoning district. Industrial facilities, including beneficiation plants and chemical plants may be zoned under the "M-1" category. A building permit must be procured from the county prior to the initiation of construction of industrial facilities.

b. Enforcement

The Zoning Ordinance provides that the regulations contained therein shall be enforced pursuant to Chapter 125, Florida Statutes. Section 125.69 provides that violations of county ordinances are misdemeanors and shall be prosecuted in the name of the state in a court having jurisdiction. Upon conviction, violators shall be punished by a fine not to exceed $500, imprisonment in the county jail not to exceed 60 days, or both. Section 125.69.

2. Mining Ordinance

a. Permitting

The Hillsborough County Mining Ordinance (Mining Ordinance), No. 74-6, is applied in conjunction with Chapter 380, Florida Statutes. No phosphate mining or processing operations may be conducted within Hillsborough County except those within the scope of a valid operating permit issued by the Board of County Commissioners. Mining Ordinance § 6. Applications for operating permits must include any required DRI application, a mining and reclamation plan, evidence of financial responsibility and copies of all applications to and approvals received from applicable federal, state and local

agencies. Id. § 14(3)(c). The mining and reclamation plan must specify numerous details, including the following:

(1) Location of proposed units to be mined, sequence of mining and estimated periods of time involved;

(2) Location and dimension of proposed settling and thickening ponds, together with heights of dams;

(3) Location and use description of any physical plant, structure, permanent pipelines or other nonmovable objects or devices to be constructed for processing;

(4) Legal description and nature of the applicant's legal interest in affected property;

(5) Drainage and flood control features, including topographic maps and points of discharge;

(6) Estimates of amounts of wastes and tailings to be created, plans for their disposal and a proposed time schedule for such disposal, together with drawings of any treatment facilities;

(7) Erosion control features;

(8) Details regarding discharge of liquid wastes;

(9) Complete copy of any application to the appropriate water management authority for water use, and a copy of the permit issued by said authority, plus certain additional information regarding withdrawals (if not already included in the water use application);

(10) Complete inventory of existing wells on the property;

(11) Descriptions and locations of proposed monitoring systems or devices;

(12) Data regarding exploratory drilling showing characteristics of the ore deposit;

(13) A transportation analysis;

(14) Detailed reclamation plan including time schedule; and

(15) Signature and seal of a professional engineer responsible for preparation of the plan.

Id. § 14(3)(d). The mining and reclamation plan need not duplicate any information furnished in the DRI. Id.

Details of construction plans for certain types of facilities must be submitted to the County Engineer and approved prior to construction. An annual report must be filed reviewing mining operations and reclamation progress during the preceding year and identifying lands expected to be mined, placed in settling ponds, or reclaimed during the current year. Id.

Applications for operating permits must be subject to public notice and hearing prior to approval. Notice of the time and place of hearing must be given by publication in a newspaper of general circulation in the county, and by posting the property. Id. § 8.

The Mining Ordinance establishes various rules and regulations for phosphate mining, including setbacks from public parks, residential areas, public rights-of-way, and property lines. Id. § 14(7). Restrictions pertaining to ambient noise, vibrations, blasting and groundwater extraction are also provided. Id. Furthermore, clearing of land, mining, placement of fill and construction of permanent buildings or other facilities are prohibited below the 25-year floodplain, except for construction of certain access roads or pipelines. Mining, placement of fill, and construction of permanent buildings or other facilities between the 25-year floodplain and the 100-year floodplain will be permitted only if certain conditions are met. Id. § 14(7)(k).

Finally, reclamation standards are provided, including criteria for (1) mined-out lands not covered by settling ponds, and (2) settling ponds,

whether constructed on mined-out land or on natural ground. Id. § 14(8). Mined out areas not covered by settling ponds will be considered to be reclaimed when the following provisions are met, unless exceptions are granted by the Board of County Commissioners:

(1) The land is sufficiently level and free of holes, gullies, and washouts to permit safe operation of conventional farm and agricultural equipment;

(2) The land has settled and firmed to the extent that it will support conventional farm and agricultural activities and impose no unreasonable hazards or limitations for other ordinary uses of land;

(3) Slopes may not exceed one (vertical) to six (horizontal);

(4) The land is vegetated according to the approved mining and reclamation plan;

(5) Water bodies with an average width or diameter greater than 96 feet will be at least eight feet deep, except that slopes of one to six will be permitted from water's edge to a depth of eight feet and depths between six and eight feet will be allowed where bedrock would otherwise have to be pierced;

(6) Drainage facilities comply with the approved mining and reclamation plan.

Reclamation of a specified "mining unit" must be completed within one year after mining in the unit is finished. Reclamation of settling ponds must be pursued in a "diligent and expeditious manner." Id.

In 1977, the Board of County Commissioners adopted Ordinance No. 77-6, which amends Ordinance No. 74-6 so as to clarify certain ambiguities regarding "debris mining" (the reprocessing of waste materials left by previous operations). The amendment specifies that debris mining, as well as phosphate

mining and phosphate processing operations, may only be conducted within the county under the terms of a valid operating permit. Other amendments incorporating the debris mining concept into the Mining Ordinance were made.

b. Enforcement

A condition of approval of any Hillsborough County operating permit is that representatives of the Board of County Commissioners may enter upon the premises of any operations conducted under the ordinance for purposes of inspection. Inspection is intended to insure compliance with the terms and conditions of the permit, the mining ordinance and rules and regulations adopted thereunder. Id. § 9(6). Failure to file the required annual report of operations or updated evidence of financial responsibility in a timely manner shall be grounds for suspension of the permit. Id. § 14(6)(g). Likewise, failure on the part of the applicant to begin mining in accordance with the approved schedule of operations, or suspension of operations for a period of two years by a permittee will be cause for revocation of approval or permit. Id. § 14(6)(m). A subsequent application for permission to commence mining will be treated as an initial application. Id.

Violation of the county mining ordinance and rules and regulations adopted thereunder constitutes a misdemeanor and shall be punishable by a fine not to exceed $500 or imprisonment not to exceed 6 months, or both. Each day on which a violation of a continuing nature occurs shall be a separate offense. Furthermore, failure of any dam, spillway or other outlet structure or failure of a settling or thickening pond resulting in degradation of the quality of any waters outside the permittee's property shall be subject to a civil penalty to be paid to the county in an amount equal to the evidence of financial responsibility required to be maintained under the ordinance. Finally, failure of a permittee to have completed reclamation of any land within the period allowed

may result in the imposition of a civil penalty in an amount equal to the evidence of financial responsibility required to be maintained. Id. § 16.

3. Local Pollution Control Program

a. Permitting

Under Section 403.182, each county or municipality or any combination thereof may establish and administer a local pollution control program if it complies with various criteria set forth in Chapter 403. In order to be approved, all local programs must: (1) be accepted by DER as adequate to meet the requirements of Chapter 403 and rules and regulations promulgated thereunder; (2) provide by ordinance, regulations or local law for requirements compatible with, or stricter or more extensive than those imposed by Chapter 403 and regulations thereunder; (3) provide for enforcement of such requirements by appropriate administrative and judicial process; and (4) provide for administrative organization, staff, financial and other resources necessary to administer the program. Id.

The Hillsborough County Environmental Protection Act (Act), Chapter 67-1504, Laws of Florida, as amended, establishes the Hillsborough County Environmental Protection Commission (HCEPC) and sets forth procedures for regulating sources of pollution within the County. The Act authorizes the HCEPC to adopt rules and regulations requiring permits before constructing, altering, expanding or operating any installation or plant which may emit, discharge or permit the escape of various pollutants. Ch. 67-1504, § 11, Laws of Florida.

The HCEPC has promulgated various rules, including air pollution standards (Chapter 1-3 of the rules of HCEPC) and water pollution standards (Chapter 1-5 of the rules of HCEPC). These rules incorporate substantial portions of appropriate DER rules.

By Resolution No. 74-35, Hillsborough County entered into an agreement with the predecessor of DER (the Department of Pollution Control) to establish a local program. The program is administered by the HCEPC.

Under the agreement between Hillsborough County and the state, the HCEPC is responsible for administration of the DER permit system in Hillsborough County. Duties include engineering review and consultation with applicants. After evaluation, the local program forwards the application to the regional DER office with the evaluation and a conclusion as to whether the permit should be issued or denied.

b. Enforcement

Under the Act, the county environmental director shall issue a notice to correct any violation or a citation to cease the violation, whenever evidence has been obtained or received that a violation of the Act or any rules thereunder has been committed. If the violation is not corrected within a reasonable time (as specified in the notice or citation), the environmental director has the authority to issue an order requiring the violator to cease or suspend operation of the facility. Alternatively, the director may institute an action to compel compliance or may initiate proceedings to prosecute the violator for violations of the Act. Ch. 67-1504, § 15, Laws of Florida.

The director may institute an administrative proceeding before the HCEPC to establish liability and recover damages, or institute such a proceeding for the abatement, prevention or control of violations, or for restoration. The director must serve a written notice of violation, which may include an order for restoration. Such order shall not become effective until after service and an administrative hearing, if requested within 20 days of service. Id., § 19.

The HCEPC may institute a civil action for injunctive relief to enforce compliance with the Act or any rule, regulation, permit, certification or order issued thereunder. The Commission may also seek to recover damages to the air, waters or property (including wildlife) or impose civil penalties for each violation in an amount of not more than $5,000 per offense. Id. Each day during any portion of which a violation occurs constitutes a separate offense. Failure of any offender to pay a duly imposed fine shall enable a court of competent jurisdiction to enter an order suspending operations of the violator. Id., § 18. Violation of any provision of the Act or of any order, rule, regulation or permit issued pursuant to its authority is a misdemeanor of the second degree, punishable under Florida law. Id.

Immediate threats to public health, aquatic life or property are subject to emergency orders (Id., § 16) and certain nuisances are treated as violations of the Act (Id., § 17).

In addition to the enforcement procedures set forth under the Act, Section 403.182 also provides that failure to comply with or violation of any rule, regulation or order of a more stringent nature adopted by a local pollution control program is considered to be a violation of Chapter 403 and is punishable as provided thereunder. See pp. 38-40 supra. DER also reserves the right to suspend the local program and administer state law and regulations if necessary to prevent and control pollution. Section 403.182(4).

C. HARDEE COUNTY

1. Zoning

a. Requirements

Pursuant to Chapter 65-1605, Laws of Florida, Hardee County adopted comprehensive zoning regulations in 1973 (Zoning Regulations). Section 25 establishes "district regulations," including "M-1" (Mining and Earth Moving)

and I-1 (General Industrial). Building permits are required prior to commencing excavation or the construction or alteration of any structure. Zoning Regulations § 34(1). Certificates of occupancy are also required. Id. § 35.

b. Enforcement

The Administrative Official shall issue a notice of violation for all violations of the Zoning Regulations and order that such violations cease. Any person or entity violating the regulations shall be guilty of a misdemeanor, punishable by a fine of not more than $500 or less than $10 and/or ten days in jail. Each day of violation after written notice is a separate offense. Id. § 38.

2. Mining Ordinance

a. Permitting

In 1974, the County adopted amendment number one to Ordinance No. 73-6, which constitutes the Hardee County Mining Ordinance (Mining Ordinance). Under the Mining Ordinance, no mining activities may be conducted except when such land is zoned M-1 (mining and earth moving district). M-1 regulations take effect upon commencement of mining. Until then, the regulations of the primary district control. An additional amendment to Ordinance No. 73-6 was approved in 1976. The second amendment establishes monitoring fees to be paid by applicants for mining permits.

As in other counties, Hardee requires submittal of detailed plans and extensive information regarding the proposed activity to be followed by yearly reviews of the operations. Mining Ordinance § 4. The initial application for a mining permit includes the DRI application for development approval, a mining and reclamation "master plan," copies of applications filed with and approvals received from federal, state and local agencies, evidence of financial responsibility, and any required zoning amendments. Id. § 5B.

The master plan noted above must be prepared and submitted under the seal of a professional engineer, and include, among other things, the following:

(1) Legal description and ownership interests for the property under consideration, plus the identity of owners of adjacent parcels;

(2) Locations of mining units;

(3) Mining sequence;

(4) Schedule of operations;

(5) Locations and sizes of proposed settling ponds or thickeners;

(6) Location of physical plant facilities;

(7) Location and description of flood control features;

(8) Location and description of major points of discharge for air pollutants, waste water and storm water runoff;

(9) Location and description of natural and man-made streams and lakes;

(10) Location and description of points of withdrawal of water for production use;

(11) Location and description of all monitoring stations;

(12) Location and description of existing wells;

(13) Data concerning elevations of the limestone, characteristics of the ore body, type and classification of soil constituting the overburden, water table elevations and results of exploratory drilling;

(14) Transportation analysis;

(15) Historical/archeological survey; and

(16) Location of utility lines and existing roads, public or private.

Id. § 7B. Furthermore, a detailed monitoring plan must be set forth and followed by the applicant. Monitoring standards are provided in Section 8B, and apply to water quantity and quality and to air quality.

The Mining Ordinance also establishes mining and settling area setbacks and standards for noise, soil vibrations, blasting, and operations within the 25 and 100-year floodplains. Id. § 8A.

Likewise, detailed reclamation standards are set forth Section 8C.

All disturbed areas must be reclaimed in accordance with the following standards:

(1) The slope of all land shall not be steeper than one vertical to two horizontal. The land shall be sufficiently level and free of holes, gullies and washouts to permit safe operation of conventional farm and agricultural equipment;

(2) The land shall be compacted sufficiently to permit safe operation of conventional farm and agricultural equipment and other ordinary use of land;

(3) The land shall be vegetated in accordance with the approved mining and reclamation plan. Plant survival rate must be 80%;

(4) Permanent bodies of water of less than 96 feet in width or bottom diameter are not permitted. All lakes must be at least eight feet deep (measured from water surface) with a side slope of one (vertical) to two (horizontal). Depth may be reduced to six feet where bedrock would otherwise have to be pierced;

(5) Storm drainage facilities shall be provided sufficient to prevent erosion and siltation;

(6) During backfilling, tailings shall be placed first and overburden used for top soil.

Reclamation of mined areas must be completed within two years after termination of operations in a "mining unit." A mining unit is a specified area for extraction over a period of time not to exceed four years. Id. § 3Q. Settling ponds must be reclaimed within ten years after final placement of slimes therein.

Other provisions of the ordinance include standards for production use of water (Section 8D), and standards for annual operating plans (Section 9), including "unit design" (Section 9A) and inspections (Section 9D).

b. Enforcement

As a condition to the issuance of any operating permit, applicants are subject to absolute liability for any injury or damages resulting from failure of any dam, spillway or other outlet structure of a settling or thickening pond, or from failure of the permittee to complete any reclamation as required. Prior to issuance of a permit, the applicant must provide evidence of financial responsibility. Id. § 6G. Operating permits are subject to suspension at any time upon finding of non-compliance with any of the terms of the Mining Ordinance or regulations adopted thereunder. While the permit is under suspension, operations are prohibited.
Id. § 6I.

If at any time during the term of the operating permit the permittee fails to comply with county, state or federal regulatory requirements, the Board of County Commissioners shall immediately notify the permittee in writing and order that appropriate corrective measures be initiated within a specific time. Should the permittee fail to comply with such notices within the time period specified, the Board shall suspend the permit until such time as compliance is proven. Furthermore, failure on the part of an applicant to begin mining in accordance with the approved schedule of operations, or suspension of operations for a period over two years will be cause for revocation of the

permit. Subsequent applications are treated as initial applications. Id. § 11.

Violation of the Mining Ordinance, including rules and regulations promulgated thereunder, shall constitute a misdemeanor punishable by a fine not to exceed $500 or imprisonment not to exceed 6 months, or both. Each day during which a violation of a continuing nature occurs shall be a separate violation. Id. § 14.

Degradation of the quality of waters outside the permittee's property from failure of any dam, spillway or other outlet structure or settling or thickening pond, or any other cause attributable to the permittee's mining operation, shall subject the permittee to a civil penalty in an amount mutually agreed to by the permittee and the Board. In the event that the agreement cannot be reached, such difference shall be submitted to binding arbitration. Id.

Failure of a permittee to complete reclamation as required at the conclusion of any reporting year shall subject the permittee to a civil penalty to be paid to the county in an amount equal to the evidence of financial responsibility required to be maintained on account of the lands involved. Id.

D. MANATEE COUNTY

1. Zoning

a. Requirements

On May 11, 1964, Manatee County Board of County Commissioners adopted a comprehensive zoning ordinance (Zoning Ordinance) which establishes district regulations, including industrial districts appropriate for such facilities as chemical plants. Zoning Ordinance, Sec. V. Mining is regulated under an amendment to Section VI of the Zoning Ordinance (Paragraph 16, as approved in Resolution Z-92, adopted April 11, 1974).

The Zoning Ordinance includes a prohibition against the removal, placement or relocation of any tree, as defined under the Ordinance, unless certain requirements have been met. These requirements include submission of a site plan, indicating the location of all trees on the affected parcel and designating trees to be removed, replaced or relocated. The application is reviewed by the Park and Recreation director and appeals from his decisions may be taken to the Board of County Commissioners. Id. sec. VI, ¶ 32, ¶ 6.

b. Enforcement

The Zoning Ordinance contains enforcement provisions authorizing the responsible administrative official to take certain actions upon determining that any of the provisions of the ordinance are being violated. These actions include notification in writing to the person, firm, or corporation responsible for the violation, indicating the nature of the violation and stating the action necessary to correct it. Such notice must also specify the time permitted for correcting the violation. Id. sec. VII, ¶ 1.

All zoning clearances for construction of buildings or structures automatically terminate if construction is not commenced within 6 months of the issuance of the approval. Renewals may be issued for additional periods of 6 months each. Id., ¶ 2.

In addition to obtaining the proper zoning for the project site, a developer must obtain building permits for erection, modification, etc. of structures within the county. The Southern Standard Building Code was adopted by the County on June 30, 1976. See Ch. 63-1600, § 4, Laws of Florida.

2. Mining Ordinance

a. Permitting

As noted above, mining is regulated in Manatee County under the Zoning Ordinance. This portion of the Zoning Ordinance shall hereafter be referred to as the "Mining Ordinance."

Under Section 2 of the Manatee Mining Ordinance, phosphate mining operations must comply with all regulations for waste treatment, maintenance of air and water quality, dam construction, reclamation and consumptive use of water as administered by the various state agencies. Monitoring stations and instrumentation must be installed as necessary to insure compliance with applicable regulations. Mining Ordinance sec. VI, ¶ 16, § 2.

Any person or organization petitioning for a "special exception to initiate and carry on earth moving operations in Manatee County" must submit a master plan for proposed operation as part of the petition. Where a DRI is necessary, the review and public hearing will be conducted simultaneously with consideration of the application for a special exception. Id., § 3.1. The master plan must include, among other things, the following:

(1) Identity of professional engineers responsible for preparation of the master plan and accompanying engineering documents;

(2) Type of material to be extracted or removed;

(3) Boundaries of the areas to be affected;

(4) Location and description of plants, structures, dams or dikes, and non-movable pipelines to be constructed. Aerial photographs must be provided showing the area involved including surrounding areas two miles in all directions;

(5) A generalized plan delineating proposed earth moving operations, to include moving and processing methods;

(6) Conceptual reclamation plan including consideration of overburden and matrix thickness, final water elevations and drainage patterns, existing land elevations and final graded topography of spoils, comparison of disturbed to undisturbed lands, method of

overburden removal, grading, sloping of pit banks, erosion control, tree planting, land use programs and water level control;

(7) Topographic maps showing parcels to be mined (with sequence indicated), drainage pattern, monitoring stations, elevation of water areas created by mining and approximate elevation of land after reclamation, location of waste storage areas, location of existing lakes and streams, location of points of discharge, and location of permanent roads to be constructed. Id., § 3.1.

Additional information required in the master plan includes a description of the geology of the area, information on water table and surface flows, and data on groundwater and consumptive use.

A petitioner has a period of 3 years from the date of approval of the master plan to submit a petition for an operating permit. Extensions may be provided by the governing body. Id., § 3.2. Applications for operating permits must include detailed information including engineering specifications for structures to be built, details of the implementation of conceptual reclamation plans and evidence of financial responsibility, including a reclamation bond. Id., § 3.3. Operating permit final approval is given by the Board of County Commissioners. Id., § 3.4.

As in other counties, operators must file an annual progress report and receive acceptance of reclaimed areas by the Board of County Commissioners. Id., § 6.2. Reclamation must meet the following conditions:

(1) The land is sufficiently level and free of holes, gullies and washouts to permit safe operation of conventional farm and agricultural equipment;

(2) The land has settled and firmed to the extent that it will support conventional farm and agricultural equipment and so that livestock can walk on the surface of the land;

(3) The land surface is returned to not less than original grade elevations and the slope of all land (except dikes) shall not be steeper than seven to one (variations in slope may be allowed for "good reason"); and

(4) Lake areas must be at least six feet deep, except that a two foot minimum depth is permitted at the shoreline and side slopes of three to one are allowed to the minimum six foot depth. Id., § 3.3(h).

The master plan must include a statement to the effect that 80% of the total property will be reclaimed (or undisturbed) within two years after completion of the mining. Id., § 3.1(3).

b. Enforcement

No person or organization holding an operating permit under the Mining Ordinance shall pollute land or water, damage wildlife, damage public or private property or allow any extraneous matter to enter or damage any mineral or freshwater-bearing formation. If pollution or damage occurs which is not authorized by the operating permit, and damages or threatens to damage human, animal or plant life, public or private property, or any mineral or water-bearing formation, the person or organization holding the operating permit shall be liable for all costs of cleanup or other damages incurred by Manatee County and for damages resulting from injury to others. In any suit to enforce claims of Manatee County under the Mining Ordinance, it is not necessary for the County to plead or prove negligence in any form or manner on the part of the person or organization holding an operating permit. The County need only plead and prove the fact of the prohibited damage or polluting condition and that it occurred at the facilities of the person or organization operating under the Mining Ordinance. Id., § 9.2.

In 1975, the Board of County Commissioners established a program to review and inspect earth moving operations within the county, established a special fund to be known as the "Manatee County Earth Moving Operations, Review and Inspection Fund," and provided for various fees to be paid by operators within the county. Manatee County Ordinance No. 75-4. In the event the fund is not sufficient to support the county budget for review and inspection of earth moving operations, the deficit must be paid by operators. Id. § 4. Failure to pay any of the fees provided for in the Ordinance may be grounds for revocation of permits. Id. § 5. Similarly, under the Mining Ordinance, failure to file the required annual progress report shall be grounds for suspension of an operating permit. Mining Ordinance sec. VI, ¶ 16, § 6.2.

3. Manatee County Pollution Control Program

a. Permitting

Under Chapter 67-1671, Laws of Florida (Manatee County Pollution Control Act), the county conducts a local program similar to that administered by the Hillsborough County Environmental Protection Commission. Chapter 67-1671 authorizes the Board of County Commissioners to adopt a code for air and water pollution control and to require any person, firm, or corporation to have a permit from the county prior to the construction, reconstruction or alteration of plants, processes, equipment or devices which may cause or create air or water pollution in any of the forms prohibited or controlled by any such code. Ch. 67-1671, § 5, Laws of Florida.

The Manatee County Pollution Control Act further provides for creation of an Air and Water Pollution Control Board to administer the law and regulation. Id. § 9. Amendments provide for a pollution control director. E.g., Ch. 71-757, Laws of Florida.

b. Enforcement

Whenever the air or water pollution control officer of Manatee County finds any violation, he must notify the person or firm committing the violation in writing, advising the person or firm of the nature of the violation and allowing a specified time for correction thereof. If the violation is not corrected within the time specified, the officer may institute legal proceedings against the person or firm or seek injunctive relief. Ch. 67-1671, § 11, Laws of Florida. Any person, firm or corporation violating any provisions of the Manatee County Pollution Control Act or code adopted thereunder, or any order, requirement or decision made pursuant thereto shall be deemed guilty of a misdemeanor, and upon conviction shall be punished in the manner provided by law. Each day a violation continues shall be deemed a separate offense. Id. § 12. Finally, special compliance procedures and reporting requirements are set forth in the air pollution control rules, as implemented in March of 1974.

4. Well Drilling

a. Permitting

Manatee County has the authority to define, license and bond well drillers operating within the County. Accordingly, no person, firm or corporation shall dig, drive, drill or bore a well, test hole or exploratory well in Manatee County without a valid well driller's license issued by the health officer. Ch. 63-1595, § 2, Laws of Florida. The law and the Manatee County regulations promulgated thereunder establish criteria for well drilling and various procedures, including notification of intent to drill. Id. § 9.

b. Enforcement

Failure or inability to obtain and hold a bond shall cause a well driller's license to be suspended. Failure to comply with provisions of

pertinent laws may also be cause for suspension and revocation of a license. License revocation procedures are established by the legislation. Id. § 6. Finally, the legislature provided that any violation of the provisions of the special act or rules or regulations promulgated thereunder shall be a misdemeanor, punishable as provided by general law. Id. § 22.

The local well-drilling program has been recognized by SWFWMD. Rule 16J-3.303.

E. DESOTO COUNTY

1. Zoning

a. Requirements

DeSoto County has adopted comprehensive zoning regulations under Ordinance No. 73-1, as amended by Ordinance No. 74-1 (Zoning Ordinance). Zoning districts applicable to phosphate facilities are set forth in Article V. Procedures for rezoning are set forth in Article XV, which requires approval by the Building and Zoning Board and prior notice and hearing before rezoning may be effected. Zoning Ordinance art. XV, § 15.1.

Building and occupancy permits are required. Id. art. XVI, §§ 16.3, 16.5. The Director of the Building and Zoning Department is responsible for receiving applications for such permits, and for enforcement of the zoning regulations. Id., § 16.1.

b. Enforcement

DeSoto County Commissioners or any owner of land in the affected area may institute proceedings for injunction, mandamus, or other appropriate action in a court of competent jurisdiction, to prevent unlawful construction, alteration, or use in violation of the zoning regulations. Id. art. XVII, § 17.1. Building and occupancy permits may be cancelled by the director if the permittee is in violation of any portion of the regulations. Id.

Violators of the regulations, upon conviction, shall be guilty of a misdemeanor and be subject to such penalties as are provided by law. Every day the violation continues is considered a separate offense. Id., § 17.2.

2. Mining Ordinance

a. Permitting

DeSoto County adopted Ordinance No. 74-6 for regulation of "earth moving activities" (including phosphate mining). This ordinance is considered as an addition to the zoning code and regulations of the County, but will hereafter be referred to as the "Mining Ordinance."

Any person or organization petitioning for a special exception to initiate and carry out earth moving operations in DeSoto County must submit a master plan of the proposed operations. Where a DRI is required, the review and public hearing will be conducted simultaneously with consideration of the application for a special exception. Mining Ordinance § 3.1. The master plan must include, among other things, the following:

(1) Identity of professional engineers responsible for preparing the engineering documents submitted;

(2) Type of material to be extracted or removed;

(3) Boundaries of the area in which the earth moving will be conducted;

(4) Location and general description of plant, structures, dams, dikes, and non-movable pipelines, plus current high resolution aerial photographs of the areas to be involved, including the surrounding two miles in all directions;

(5) A generalized plan delineating the proposed earth moving operation, to include moving and processing methods; and

(6) A conceptual reclamation plan to include data on the overburden and matrix thickness, final water elevations and drainage patterns, existing land elevations and final graded topography of spoils, proper and effective spoil placement, comparison of unmined (undisturbed) land versus disturbed land, specialized uses, disposal of clay tailings, overburden removal procedures, grading, sloping pit banks, erosion control, tree planting, land use programs and water level control. Id. § 3.1.

The master plan must also include topographic maps showing the parcels to be mined, and the sequence for mining and reclamation, drainage patterns, monitoring stations, approximate elevation of water areas created by mining, approximate elevation after reclamation, location of waste storage areas, existing lakes and streams, points of discharge, and permanent roads to be constructed. Additional information required includes methods to provide positive protection against undesirable pollutants leaving the property, geology, and data on surface water, the water table and groundwater (including information on consumptive use). Id.

Petitions for operating permits must be submitted within 3 years from the date of approval of the master plan unless an extension is granted. These petitions provide additional information pertaining to the proposed operations, including engineering specifications for structures, implementation of conceptual reclamation proposed under the master plan, a reclamation bond, and evidence of financial responsibility. Id. § 3.3.

Operators must file an annual progress report and obtain acknowledgement of compliance with reclamation standards. Id. § 6. These standards are essentially identical to those set forth in the Manatee Mining Ordinance. See pp. 76-77 supra.

b. Enforcement

Failure to file the required annual report shall be grounds for suspension of an operating permit. Extensions may be granted by the Board of County Commissioners upon request for reasonable cause. Id. § 6.2.

No person or organization holding an operating permit under the Mining Ordinance shall pollute the land or water, damage wildlife or allow extraneous matter to enter or damage any mineral or freshwater bearing formation. If pollution damage occurs from an operation subject to an operating permit under the Ordinance, which damages or threatens human, animal or plant life, public or private property or a mineral or water bearing formation, the operator shall be liable for all costs of cleanup or other damages incurred by the county and for damages resulting from injury to others. In any suit to enforce claims of DeSoto County under the Ordinance, it shall not be necessary for the County to plead or prove negligence in any form or manner on the part of the person or organization holding an operating permit. The County need only plead and prove the prohibited damage or polluting condition and that it occurred at the facilities of the person or organization conducting operations pursuant to an operating permit issued under the Ordinance. Id. § 9. Violation of the Ordinance or any part thereof shall be considered as a misdemeanor of the second degree and punished accordingly. Id.

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